

## Multiplying polynomials - Integers - Simplify product of binomials and trinomials

**Simplify integer product with two variables:**

1)  $(x - 6y)(3x^2 + xy + 3y^2)$

2)  $(4x - y)(x^2 - 4xy + 3y^2)$

3)  $(7u - 4v)(8u^2 - 7uv + 7v^2)$

4)  $(4u - v)(4u^2 + 8uv - 7v^2)$

5)  $(6x + 4y)(3x^2 - 5xy - 7y^2)$

6)  $(3x + y)(4x^2 - 7xy - 8y^2)$

7)  $(8a + b)(6a^2 - 8ab + 4b^2)$

8)  $(5a - 6b)(5a^2 + 7ab - 8b^2)$

9)  $(3x + 6y)(7x^2 + 3xy - 8y^2)$

10)  $(8x + 8y)(4x^2 + 2xy - 8y^2)$

11)  $(2m - 3n)(m^2 - 2mn + 8n^2)$

12)  $(4x - 6y)(8x^2 + xy - y^2)$

13)  $(7m - n)(7m^2 - 3mn - n^2)$

14)  $(x - 4y)(5x^2 - 8xy - 2y^2)$

15)  $(4x + y)(2x^2 + 5xy - 2y^2)$

16)  $(6x - y)(x^2 - 8xy - 2y^2)$

17)  $(8x + 4y)(8x^2 + 4xy - 2y^2)$

18)  $(3u + v)(5u^2 - 3uv - 6v^2)$

19)  $(8u + 3v)(2u^2 - uv + 5v^2)$

20)  $(2x + 8y)(6x^2 - 2xy - 2y^2)$

21)  $(5x + 6y)(4x^2 + 3xy - 3y^2)$

22)  $(4a - 3b)(7a^2 - 2ab + 4b^2)$

23)  $(a - b)(3a^2 + 6ab + 4b^2)$

24)  $(4x - 4y)(2x^2 - 7xy + 3y^2)$

25)  $(7x - 6y)(5x^2 - 6xy + 4y^2)$

26)  $(6m + n)(8m^2 + 5mn + 3n^2)$

27)  $(x - 2y)(6x^2 + xy + 3y^2)$

28)  $(3m + 4n)(4m^2 + 4mn - 6n^2)$

29)  $(5x + y)(3x^2 - 7xy + y^2)$

30)  $(5x - 5y)(4x^2 + 2xy - 5y^2)$

31)  $(5x + 8y)(6x^2 - 5xy - 7y^2)$

32)  $(8u - 4v)(4u^2 + 7uv - 8v^2)$

33)  $(2x + 3y)(7x^2 + 8xy - 7y^2)$

34)  $(x - 6y)(x^2 + 3xy - 8y^2)$

35)  $(7x - 4y)(7x^2 + 2xy + 8y^2)$

36)  $(a + b)(4a^2 - 2ab - b^2)$

37)  $(3x - 2y)(3x^2 + xy - y^2)$

38)  $(4u - v)(4u^2 - 8uv - 7v^2)$

39)  $(2x + 6y)(8x^2 - 2xy + 8y^2)$

40)  $(6a + 3b)(a^2 - 3ab - b^2)$

41)  $(6x + 3y)(4x^2 + 8xy - 2y^2)$

42)  $(2m + 6n)(6m^2 - 4mn - 2n^2)$

43)  $(8m + 8n)(2m^2 + 4mn - 2n^2)$

44)  $(x - 4y)(4x^2 - 3xy - 3y^2)$

45)  $(5x - 7y)(7x^2 + 3xy + 5y^2)$

46)  $(7x - y)(5x^2 - xy + 5y^2)$

47)  $(x - 4y)(3x^2 + 2xy + 5y^2)$

48)  $(4u + v)(2u^2 - 2uv + 4v^2)$

49)  $(6x - 2y)(8x^2 - 7xy + 4y^2)$

50)  $(8u - 8v)(8u^2 + 4uv - 4v^2)$

51)  $(3x + y)(5x^2 - 7xy + 3y^2)$

52)  $(6a + 6b)(2a^2 + 5ab + 3b^2)$

53)  $(8x + 3y)(2x^2 - 6xy + y^2)$

54)  $(2a + 8b)(8a^2 + 4ab - 6b^2)$

55)  $(5x - 4y)(6x^2 - 7xy + 4y^2)$

56)  $(7m - 7n)(3m^2 - 4mn - 7n^2)$

57)  $(2x - y)(2x^2 - xy - 7y^2)$

58)  $(4m - 4n)(7m^2 - 7mn - n^2)$

59)  $(7x + y)(7x^2 + 7xy - 8y^2)$

60)  $(x - 2y)(4x^2 - 6xy - 8y^2)$

61)  $(3x + 3y)(3x^2 + 6xy - 8y^2)$

62)  $(6x - 6y)(x^2 - xy + 5y^2)$

63)  $(3x + 3y)(6x^2 + xy - y^2)$

64)  $(5u - 7v)(3u^2 - uv + 6v^2)$

65)  $(5u + 8v)(4u^2 - 3uv - v^2)$

66)  $(8x - 4y)(2x^2 - 2xy - 6y^2)$

67)  $(2a - 7b)(6a^2 - 2ab - 5b^2)$

68)  $(4x - 2y)(7x^2 + 8xy - 2y^2)$

69)  $(8a - 4b)(5a^2 + 4ab - 2b^2)$

70)  $(x + y)(4x^2 + 8xy + 5y^2)$

71)  $(3m - 2n)(m^2 + 3mn + 5n^2)$

72)  $(7x + 3y)(8x^2 - xy + 5y^2)$

73)  $(m - 3n)(2m^2 + 4mn - 5n^2)$

74)  $(3x + 5y)(5x^2 - 2xy + 4y^2)$

75)  $(6x + 3y)(2x^2 - 7xy + 4y^2)$

76)  $(8x + 8y)(x^2 - 3xy + 4y^2)$

77)  $(2x - 4y)(8x^2 - 7xy + 3y^2)$

78)  $(4u - 7v)(6u^2 + 5uv - 6v^2)$

79)  $(8x - 2y)(3x^2 - 8xy - 6y^2)$

80)  $(u - 5v)(2u^2 + 4uv - 6v^2)$

81)  $(3x + y)(5x^2 - 3xy - 8y^2)$

82)  $(7a - 2b)(6a^2 + 3ab - 7b^2)$

83)  $(8x - y)(2x^2 + 2xy - 2y^2)$

84)  $(3a - b)(3a^2 - 7ab + 2b^2)$

85)  $(6x + 5y)(x^2 + 7xy - 8y^2)$

86)  $(7m + 7n)(5m^2 - 8mn + 5n^2)$

87)  $(2x + 8y)(6x^2 + 6xy + 6y^2)$

88)  $(5m - 4n)(4m^2 + 2mn - n^2)$

89)  $(8x - 7y)(3x^2 + 5xy - y^2)$

90)  $(x - 2y)(8x^2 - xy + y^2)$

91)  $(5x - 5y)(7x^2 - 3xy - y^2)$

92)  $(7x + y)(6x^2 - 2xy + 4y^2)$

93)  $(5u - 6v)(2u^2 - 2uv + 6v^2)$

94)  $(4x + 3y)(x^2 + 8xy - 2y^2)$

95)  $(6u + v)(4u^2 + 6uv - 8v^2)$

96)  $(4x + y)(4x^2 + 5xy - 7y^2)$

97)  $(3a + 2b)(5a^2 + 3ab + 5b^2)$

98)  $(5x + 8y)(2x^2 + 7xy + 5y^2)$

99)  $(8a - 4b)(a^2 + 2ab + 4b^2)$

100)  $(2x - 7y)(8x^2 - 2xy + 4y^2)$

101)  $(8m - 6n)(12m^2 + 12mn + 10n^2)$

102)  $(5x + 8y)(5x^2 + 2xy + 12y^2)$

103)  $(7m + 4n)(10m^2 - 8mn - 5n^2)$

104)  $(2x - 10y)(3x^2 + 3xy - y^2)$

105)  $(5x - 6y)(2x^2 + 6xy - 3y^2)$

106)  $(5x + 4y)(8x^2 - 8xy + y^2)$

107)  $(12u - 11v)(6u^2 + 3uv + 4v^2)$

108)  $(2x + 10y)(6x^2 - 7xy + 6y^2)$

109)  $(2x + 10y)(7x^2 + 2xy + 8y^2)$

110)  $(12u + 7v)(11u^2 + 8uv + 7v^2)$

111)  $(10x - 4y)(3x^2 + 4xy + 9y^2)$

112)  $(12a - 8b)(9a^2 - 6ab - 7b^2)$

113)  $(9x + 6y)(9x^2 + 8xy - 5y^2)$

114)  $(7a + 2b)(a^2 + 5ab - 4b^2)$

115)  $(7m - 12n)(7m^2 + 9mn + 2n^2)$

116)  $(9x - 9y)(7x^2 - 6xy - 2y^2)$

117)  $(4x + 2y)(12x^2 + 6xy + 2y^2)$

118)  $(7m - 2n)(5m^2 - 5mn + 3n^2)$

119)  $(4x + 12y)(10x^2 + 10xy + 5y^2)$

120)  $(4x + 5y)(3x^2 - 4xy - 9y^2)$

121)  $(x + 8y)(10x^2 + 6xy - 11y^2)$

122)  $(x - 6y)(8x^2 + 10xy - 8y^2)$

123)  $(x + 4y)(x^2 - 3xy - 4y^2)$

124)  $(11u - 9v)(7u^2 - 3uv - 4v^2)$

125)  $(12u - 10v)(4u^2 - 6uv - 4v^2)$

126)  $(9x - 11y)(11x^2 + xy - y^2)$

127)  $(11a + 11b)(4a^2 - 3ab + b^2)$

128)  $(9x - 5y)(3x^2 + 10xy + 9y^2)$

129)  $(6a - 4b)(9a^2 + ab + 11b^2)$

130)  $(8x + 10y)(x^2 - 2xy - 12y^2)$

131)  $(3x + 2y)(7x^2 + 2xy - 8y^2)$

132)  $(6m - 8n)(12m^2 - mn - 7n^2)$

133)  $(3x - 12y)(5x^2 - 12xy - 5y^2)$

134)  $(6m + 6n)(2m^2 - 12mn - 10n^2)$

135)  $(5x - 2y)(10x^2 + 3xy - 9y^2)$

136)  $(3x - 2y)(10x^2 - xy - 2y^2)$

137)  $(x - 11y)(3x^2 + 7xy + 3y^2)$

138)  $(11u + 8v)(8u^2 + 4uv + 9v^2)$

139)  $(11x - 3y)(x^2 + 11xy + 3y^2)$

140)  $(10u - 6v)(u^2 - 10uv + 12v^2)$

141)  $(8x + 8y)(6x^2 + 4xy - 11y^2)$

142)  $(5a + 4b)(11a^2 - 6ab - 9b^2)$

143)  $(8x - 3y)(7x^2 - 7xy + 9y^2)$

144)  $(5a - 11b)(4a^2 + 5ab - 6b^2)$

145)  $(2x + 11y)(9x^2 - 5xy + 3y^2)$

146)  $(5m - 9n)(2m^2 - 3mn + 9n^2)$

147)  $(2x - 4y)(2x^2 + 6xy + 7y^2)$

148)  $(3m - 9n)(m^2 + 8mn - 3n^2)$

149)  $(2x + 6y)(12x^2 - 8xy + 10y^2)$

150)  $(12x + 7y)(5x^2 - 3xy - 7y^2)$

151)  $(12x + 6y)(10x^2 - 7xy - 10y^2)$

152)  $(10u + 2v)(3u^2 + 7uv - 8v^2)$

153)  $(10x - 8y)(5x^2 - 4xy - 12y^2)$

154)  $(7x - 2y)(3x^2 - 3xy + y^2)$

155)  $(10u + 12v)(8u^2 - 7uv + 2v^2)$

156)  $(7x + 9y)(x^2 + 8xy + 4y^2)$

157)  $(4a - 2b)(6a^2 - 2ab + 6b^2)$

158)  $(7x - 6y)(6x^2 + 12xy + 8y^2)$

159)  $(4a + 8b)(12a^2 + 9ab + 9b^2)$

160)  $(2x + 4y)(4x^2 - 2xy + 11y^2)$

161)  $(4m - 7n)(9m^2 - 12mn - 12n^2)$

162)  $(x - 10y)(9x^2 + 9xy - 4y^2)$

163)  $(12m + 4n)(2m^2 - mn - 2n^2)$

164)  $(x - 12y)(12x^2 + 10xy + 4y^2)$

165)  $(12x - 4y)(7x^2 + 10xy + 2y^2)$

166)  $(9x + 10y)(2x^2 + 3xy + 10y^2)$

167)  $(11x + 6y)(5x^2 - 11xy + 5y^2)$

168)  $(9u - 4v)(10u^2 + 11uv + 7v^2)$

169)  $(6x - 8y)(11x^2 + 9xy - 3y^2)$

170)  $(9u + 6v)(3u^2 - 10uv - 8v^2)$

171)  $(6x + 2y)(8x^2 + 12xy - 6y^2)$

172)  $(3a - 9b)(a^2 + ab - 4b^2)$

173)  $(6x + 12y)(x^2 - 9xy - 3y^2)$

174)  $(3a + 2b)(6a^2 + 12ab - b^2)$

175)  $(x - 2y)(12x^2 + 2xy + y^2)$

176)  $(3m - 6n)(4m^2 - 9mn + 3n^2)$

177)  $(3x - y)(6x^2 - 7xy + 2y^2)$

178)  $(11m + 4n)(10m^2 + 3mn + 6n^2)$

179)  $(11x - 10y)(2x^2 + 7xy - 8y^2)$

180)  $(12x - 10y)(3x^2 - 10xy + 4y^2)$

181)  $(8x + 4y)(7x^2 + 3xy - 7y^2)$

182)  $(11x - 6y)(12x^2 - 5xy - 9y^2)$

183)  $(8u - 11v)(5u^2 + 7uv - 3v^2)$

184)  $(5x + 10y)(5x^2 + 4xy - y^2)$

185)  $(8u - v)(11u^2 - 6uv + 10v^2)$

186)  $(5x - 4y)(3x^2 + 8xy + 2y^2)$

187)  $(3a - 8b)(8a^2 + 5ab + 11b^2)$

188)  $(5x + 6y)(9x^2 - 6xy + 12y^2)$

189)  $(2a + 2b)(a^2 + 9ab - 11b^2)$

190)  $(x - 8y)(6x^2 - 9xy - 2y^2)$

191)  $(2m - 12n)(12m^2 - 5mn - 7n^2)$

192)  $(11x + y)(5x^2 - 6xy - 3y^2)$

193)  $(10m - 2n)(4m^2 - mn - 4n^2)$

194)  $(12x + 12y)(10x^2 - 4xy - 2y^2)$

195)  $(10x + 8y)(10x^2 + 10xy + 7y^2)$

196)  $(7x - 3y)(2x^2 + 8xy + 4y^2)$

197)  $(10x - 6y)(7x^2 - 3xy + 10y^2)$

198)  $(7u - 10v)(9u^2 + 12uv + 4v^2)$

199)  $(4x + 4y)(2x^2 - 12xy - 8y^2)$

200)  $(7u - v)(12u^2 - 10uv + 4v^2)$

201)  $(2x + 14y)(3x^2 + 4xy + 9y^2)$

202)  $(20a - 7b)(13a^2 - 14ab - 7b^2)$

203)  $(16x - 18y)(10x^2 + xy - 10y^2)$

204)  $(x - 10y)(10x^2 + 7xy + 4y^2)$

205)  $(18m + 10n)(20m^2 - 19mn - 5n^2)$

206)  $(4a + 2b)(5a^2 + 13ab - 14b^2)$

207)  $(7x - 2y)(18x^2 + 4xy - 15y^2)$

208)  $(3m + 18n)(7m^2 - 13mn + 17n^2)$

209)  $(20x - 2y)(17x^2 + xy + 8y^2)$

210)  $(9x - 14y)(15x^2 - 16xy - 2y^2)$

211)  $(5x + 6y)(4x^2 + 8xy - 11y^2)$

212)  $(11u + 14v)(3u^2 + 5uv + 3v^2)$

213)  $(2x - 6y)(14x^2 - 10xy + 12y^2)$

214)  $(8x + 2y)(x^2 - 13xy - 7y^2)$

215)  $(4u - 18v)(11u^2 + 11uv - 16v^2)$

216)  $(10a - 10b)(11a^2 + 8ab + 7b^2)$

217)  $(13x + 11y)(15x^2 + 16xy + 7y^2)$

218)  $(6x + 19y)(8x^2 - 9xy - 3y^2)$

219)  $(16a - 2b)(18a^2 + 5ab - 12b^2)$

220)  $(12x + 18y)(8x^2 - 12xy + 11y^2)$



221)  $(8m + 7n)(18m^2 + 11mn + 2n^2)$

222)  $(18x - 14y)(15x^2 - 15xy - 8y^2)$

223)  $(11x - 6y)(15x^2 - 9xy + 15y^2)$

224)  $(20x - 18y)(4x^2 + 6xy + 5y^2)$

225)  $(14m + 15n)(5m^2 + 8mn - 17n^2)$

226)  $(16u + 3v)(2u^2 - 12uv - 4v^2)$

227)  $(19x - y)(20x^2 + 9xy - 7y^2)$

228)  $(u + 11v)(u^2 - 15uv + 19v^2)$

229)  $(13x - 9y)(12x^2 + 12xy - 13y^2)$

230)  $(15u + 19v)(9u^2 - 9uv - 9v^2)$

231)  $(17x + 7y)(6x^2 + 12xy + 4y^2)$

232)  $(11a - 19b)(12a^2 + 14ab - 18b^2)$

233)  $(6a - 5b)(16a^2 - 5ab - 5b^2)$

234)  $(3x - 2y)(19x^2 + 15xy - 18y^2)$

235)  $(8x - 18y)(13x^2 + 15xy - y^2)$

236)  $(19m + 3n)(16m^2 - 8mn + 17n^2)$

237)  $(2x + 15y)(5x^2 + 9xy - 14y^2)$

238)  $(4m + 12n)(2m^2 - 11mn - 10n^2)$

239)  $(10x + 20y)(2x^2 - 5xy + 12y^2)$

240)  $(x - 9y)(13x^2 + 13xy - 19y^2)$

241)  $(6u - v)(20u^2 + 10uv + 3v^2)$

242)  $(3x + 19y)(10x^2 - 8xy - 6y^2)$

243)  $(12u + 7v)(20u^2 + 16uv - 15v^2)$

244)  $(5u + 16v)(7u^2 + 13uv - 2v^2)$

245)  $(9x - 13y)(17x^2 - 10xy + 16y^2)$

246)  $(15x - 5y)(17x^2 - 4xy - 11y^2)$

247)  $(11a - 17b)(6a^2 + 19ab + 20b^2)$

248)  $(7x + 3y)(3x^2 - 7xy + 11y^2)$

249)  $(17a - 9b)(14a^2 + 16ab + 2b^2)$

250)  $(13x + 12y)(3x^2 - xy - 7y^2)$

251)  $(10m - 10n)(11m^2 - 17mn + 20n^2)$

252)  $(19x + 20y)(11x^2 - 4xy + 15y^2)$

253)  $(15m - n)(18m^2 + 6mn + 13n^2)$

254)  $(12x - 13y)(10x^2 - 7xy - 12y^2)$

255)  $(x - 10y)(17x^2 + 19xy + 6y^2)$

256)  $(18u - 4v)(18u^2 - uv + 10v^2)$

257)  $(14x + 16y)(7x^2 + 14xy + y^2)$

258)  $(2u + 4v)(18u^2 - 3uv - 8v^2)$

259)  $(20x - 17y)(15x^2 + 20xy - 18y^2)$

260)  $(16u + 12v)(4u^2 - 6uv + 14v^2)$

261)  $(5x - 8y)(15x^2 + 17xy + 5y^2)$

262)  $(a - 20b)(4a^2 - 14ab + 13b^2)$

263)  $(18x - 3y)(20x^2 + 9xy + 8y^2)$

264)  $(7a + 20b)(11a^2 - 3ab + 9b^2)$

265)  $(3x + 8y)(x^2 - 20xy + 2y^2)$

266)  $(4m + 3n)(19m^2 - mn + 17n^2)$

267)  $(5m - 4n)(19m^2 + 13mn - 8n^2)$

268)  $(17x + 17y)(8x^2 + 18xy - 19y^2)$

269)  $(2x - 16y)(8x^2 - 17xy + 4y^2)$

270)  $(19x + 4y)(18x^2 - 3xy - 15y^2)$

271)  $(8u - 8v)(16u^2 - 20uv + 17v^2)$

272)  $(4x + 12y)(5x^2 + 4xy + 8y^2)$

273)  $(17u + 11v)(12u^2 - 2uv + 6v^2)$

274)  $(10x - 20y)(13x^2 + xy - 11y^2)$

275)  $(6a - 5b)(19a^2 - 20ab - b^2)$

276)  $(3x - 12y)(12x^2 - 2xy + 12y^2)$

277)  $(12a + 8b)(2a^2 - 20ab + 2b^2)$

278)  $(9x - 4y)(20x^2 + 4xy - 7y^2)$

279)  $(5a + 17b)(9a^2 + 19ab + 16b^2)$

280)  $(14x + 5y)(20x^2 + xy + 7y^2)$

281)  $(11m - 16n)(9m^2 - 16mn - 3n^2)$

282)  $(7x + 13y)(6x^2 + 7xy - 12y^2)$

283)  $(17m - 8n)(16m^2 - 19mn + 20n^2)$

284)  $(13x - 20y)(6x^2 + 4xy + 10y^2)$

285)  $(9x + y)(16x^2 - 13xy + y^2)$

286)  $(19u - 20v)(13u^2 + 2uv - 8v^2)$

287)  $(15x + 9y)(3x^2 - 16xy + 15y^2)$

288)  $(12u - 12v)(13u^2 + 8uv + 5v^2)$

289)  $(3x + 8y)(8x^2 - 4xy - 19y^2)$

290)  $(17a - 4b)(12a^2 - 13ab + 10b^2)$

291)  $(14x - 15y)(10x^2 - 12xy + 19y^2)$

292)  $(2a + 5b)(20a^2 + 2ab + 9b^2)$

293)  $(20x - 7y)(18x^2 - 15xy - y^2)$

294)  $(16a + 13b)(7a^2 + 8ab - 9b^2)$

295)  $(4x + y)(17x^2 - 18xy + 14y^2)$

296)  $(m - 19n)(7m^2 + 5mn + 4n^2)$

297)  $(18x + y)(4x^2 - 12xy - 5y^2)$

298)  $(7m - 11n)(14m^2 + 3mn - 14n^2)$

299)  $(3x + 9y)(3x^2 - 15xy + 17y^2)$

300)  $(20x - 3y)(14x^2 + 9xy + 8y^2)$

301)  $(39u + 17v)(23u^2 + 6uv - 2v^2)$

302)  $(26x + 5y)(39x^2 - 25xy - 14y^2)$

303)  $(14u + 49v)(5u^2 - 13uv - 27v^2)$

304)  $(26x + 36y)(21x^2 + 18xy + 21y^2)$

305)  $(14a - 21b)(12a^2 - 31ab + 6b^2)$

306)  $(x - 34y)(29x^2 - 19xy - 6y^2)$

307)  $(13a + 10b)(45a^2 - 6ab - 19b^2)$

308)  $(39a + 42b)(2a^2 - 25ab - 43b^2)$

309)  $(x - 46y)(36x^2 - 38xy - 31y^2)$

310)  $(x - 15y)(18x^2 - 13xy + 45y^2)$

311)  $(39m - 28n)(34m^2 - 44mn + 33n^2)$

312)  $(26x + 16y)(26x^2 - 31xy - 23y^2)$

313)  $(39m + 3n)(42m^2 - 19mn - 35n^2)$

314)  $(26x + 48y)(7x^2 - 50xy - 48y^2)$

315)  $(14x + 35y)(23x^2 - 38xy + 41y^2)$

316)  $(13x - 35y)(31x^2 + 44xy + 17y^2)$

317)  $(u + 9v)(47u^2 - 44uv + 4v^2)$

318)  $(26u - 22v)(15u^2 - 25uv + 29v^2)$

319)  $(a + 41b)(4a^2 - 19ab + 37b^2)$

320)  $(39x - 16y)(20x^2 - 50xy + 25y^2)$

321)  $(13x - 48y)(13x^2 - 31xy - 8y^2)$

322)  $(18a - 37b)(25a^2 + 12ab + 3b^2)$

323)  $(39x + 46y)(10x^2 - 44xy - 25y^2)$

324)  $(26a + 2b)(44a^2 + 44ab - 12b^2)$

325)  $(26m + 34n)(26m^2 - 31mn - 37n^2)$

326)  $(39x + 15y)(28x^2 - 25xy - 15y^2)$

327)  $(13x - 23y)(17x^2 + 38xy - 49y^2)$

328)  $(m - 36n)(34m^2 - 50mn + 40n^2)$

329)  $(13x + 8y)(50x^2 - 38xy - 17y^2)$

330)  $(x - 49y)(15x^2 + 32xy - 29y^2)$

331)  $(4x + 9y)(22x^2 + 48xy - 24y^2)$

332)  $(39u - 30v)(39u^2 + 26uv + 35v^2)$

333)  $(39u + 40v)(7u^2 + 44uv - 41v^2)$

334)  $(26x + 14y)(4x^2 + 38xy + 23y^2)$

335)  $(14a + 33b)(28a^2 + 32ab + 43b^2)$

336)  $(26x + 45y)(12x^2 - 38xy - 2y^2)$

337)  $(39a + b)(47a^2 - 50ab + 11b^2)$

338)  $(26x - 24y)(20x^2 + 45xy + 31y^2)$

339)  $(x + 7y)(x^2 + 26xy + 6y^2)$

340)  $(13m - 6n)(18m^2 + 38mn - 6n^2)$

341)  $(13m - 37n)(36m^2 - 44mn + 19n^2)$

342)  $(39m - 18n)(25m^2 + 19mn - 30n^2)$

343)  $(x + 38y)(9x^2 - 50xy - 18y^2)$

344)  $(18x + 18y)(18x^2 - 43xy + 12y^2)$

345)  $(39x + 13y)(7x^2 + 45xy + 2y^2)$

346)  $(26u + 24v)(17u^2 - 10uv - 25v^2)$

347)  $(26u + 31v)(31u^2 + 38uv - 35v^2)$

348)  $(13x - 25y)(47x^2 + 7xy - 47y^2)$

349)  $(39x + 44y)(15x^2 + 26xy - 23y^2)$

350)  $(26a - 38b)(38a^2 + 19ab + 42b^2)$

351)  $(13x + 6y)(4x^2 + 32xy + 29y^2)$

352)  $(a - 7b)(20a^2 + ab + 17b^2)$

353)  $(13x + 37y)(36x^2 + 13xy + 5y^2)$

354)  $(3m - 37n)(15m^2 + 50mn - 15n^2)$

355)  $(6m + 26n)(14m^2 + 25mn + 48n^2)$

356)  $(39x - 32y)(44x^2 + 38xy + 37y^2)$

357)  $(39x - y)(x^2 + 19xy + 13y^2)$

358)  $(26m + 43n)(17m^2 + 32mn + n^2)$

359)  $(38x + 30y)(33x^2 + xy - 12y^2)$

360)  $(26x - 27y)(50x^2 + 13xy - 24y^2)$

361)  $(13u - 39v)(41u^2 + 26uv - 36v^2)$

362)  $(26x + 5y)(6x^2 - 6xy + 8y^2)$

363)  $(15x - 35y)(11x^2 - 16xy - 43y^2)$

364)  $(13a - 21b)(30a^2 - 12ab - 28b^2)$

365)  $(13u - 8v)(23u^2 + 7uv - 4v^2)$

366)  $(18x - 29y)(11x^2 - 41xy + 21y^2)$

367)  $(39a + 11b)(12a^2 + 13ab + 48b^2)$

368)  $(20x + 35y)(10x^2 + 36xy - 16y^2)$

369)  $(39m + 42n)(19m^2 - 6mn + 24n^2)$

370)  $(26x + 29y)(36x^2 + 7xy - 33y^2)$

371)  $(38m - 28n)(m^2 - 25mn - 45n^2)$

372)  $(13m + 4n)(9m^2 + mn + 31n^2)$

373)  $(26x - 40y)(43x^2 - 12xy + 44y^2)$

374)  $(26x - 9y)(25x^2 + 13xy + 19y^2)$

375)  $(13x + 35y)(41x^2 - 18xy + 7y^2)$

376)  $(3u + 18v)(7u^2 - 5uv - 7v^2)$

377)  $(13x - 35y)(49x^2 + 7xy - 18y^2)$

378)  $(6u - 20v)(6u^2 - 30uv - 44v^2)$

379)  $(39x - 3y)(31x^2 - 12xy + 15y^2)$

380)  $(8a - 13b)(32a^2 + 3ab + 20b^2)$

381)  $(38x + 28y)(38x^2 - 31xy - 10y^2)$

382)  $(26a - 29b)(4a^2 - 18ab - 22b^2)$

383)  $(26m + 3n)(11m^2 - 37mn - 47n^2)$

384)  $(38x - 42y)(20x^2 - 6xy - 34y^2)$

385)  $(13x - 10y)(27x^2 - 25xy + 42y^2)$

386)  $(25m + 34n)(44m^2 - 12mn + 30n^2)$

387)  $(13x - 23y)(35x^2 - 43xy - 26y^2)$

388)  $(17m + 26n)(3m^2 - 39mn + 30n^2)$

389)  $(13x + 8y)(17x^2 - 18xy + 50y^2)$

390)  $(20x - 11y)(28x^2 + 38xy - 7y^2)$

391)  $(26x + 27y)(41x^2 - 24xy + 13y^2)$

392)  $(38u - 30v)(6u^2 - 12uv + v^2)$

393)  $(38u + 40v)(24u^2 - 37uv + 26v^2)$

394)  $(26x - 43y)(22x^2 - 43xy - 11y^2)$

395)  $(25x - 11y)(30x^2 - 18xy + 21y^2)$

396)  $(13a + 33b)(46a^2 - 50ab + 9b^2)$

397)  $(13a + b)(14a^2 - 31ab - 23b^2)$

398)  $(3x + 29y)(33x^2 + 2xy - 27y^2)$

399)  $(13m - 37n)(3m^2 - 24mn - 16n^2)$

400)  $(5x + 35y)(50x^2 - 28xy - 35y^2)$

401)  $(89m - 41n)(66m^2 - 19mn - 74n^2)$

402)  $(87x - 71y)(92x^2 + 44xy + 34y^2)$

403)  $(28x - 96y)(73x^2 - 98xy - 60y^2)$

404)  $(69x + 50y)(36x^2 + 29xy - 50y^2)$

405)  $(11u + 20v)(61u^2 + 88uv + 58v^2)$

406)  $(71x + 75y)(54x^2 - 35xy + 43y^2)$

407)  $(51u - 34v)(24u^2 + 14uv + 72v^2)$

408)  $(94x - 64y)(5x^2 + 77xy - 21y^2)$

409)  $(53x - 4y)(42x^2 - 50xy - 36y^2)$

410)  $(35a - 89b)(30a^2 - 65ab + 86b^2)$

411)  $(34x + 82y)(12x^2 - 2xy - 7y^2)$

412)  $(76a + 57b)(94a^2 + 62ab + 96b^2)$

413)  $(17x + 28y)(75x^2 - 80xy + 3y^2)$

414)  $(16m + 3n)(95m^2 - 91mn - 45n^2)$

415)  $(99x - 82y)(44x^2 - 32xy + 32y^2)$

416)  $(5m - 94n)(76m^2 - 76mn - 57n^2)$

417)  $(58x - 27y)(82x^2 + 47xy + 17y^2)$

418)  $(40x + 94y)(70x^2 + 31xy - 62y^2)$

419)  $(23u + 10v)(58u^2 + 16uv + 55v^2)$

420)  $(81x + 35y)(32x^2 - 47xy - 47y^2)$

421)  $(65x - 20y)(39x^2 + 75xy - 38y^2)$

422)  $(83x + 65y)(51x^2 + 90xy + 46y^2)$

423)  $(5x - 75y)(2x^2 + xy - 23y^2)$

424)  $(63u - 45v)(20u^2 - 63uv + 70v^2)$

425)  $(47a - 99b)(27a^2 + 59ab + 84b^2)$

426)  $(46x + 72y)(8x^2 - 78xy - 9y^2)$

427)  $(88a + 47b)(91a^2 - 14ab + 99b^2)$

428)  $(28m - 8n)(97m^2 - 93mn - 93n^2)$

429)  $(29x + 17y)(72x^2 + 49xy + 6y^2)$

430)  $(70x - 37y)(79x^2 - 30xy + 15y^2)$

431)  $(12m - 67n)(60m^2 + 34mn - 78n^2)$

432)  $(53x + 79y)(67x^2 - 45xy - 64y^2)$

433)  $(10x - 92y)(41x^2 + 92xy + 30y^2)$

434)  $(95x + 54y)(48x^2 + 19xy + 44y^2)$

435)  $(93x + 24y)(29x^2 + 77xy - 49y^2)$

436)  $(35u - 92v)(64u^2 + 58uv + 78v^2)$

437)  $(77x - 30y)(36x^2 + 3xy - 40y^2)$

438)  $(76u - 55v)(17u^2 + 62uv + 68v^2)$

439)  $(59a + 91b)(24a^2 - 12ab + 82b^2)$

440)  $(17x - 85y)(99x^2 - 75xy - 25y^2)$

441)  $(58x + 61y)(5x^2 + 47xy - 11y^2)$

442)  $(100a + 32b)(87a^2 - 91ab + 97b^2)$

443)  $(42x + 7y)(69x^2 - 27xy + 4y^2)$

444)  $(40m - 23n)(94m^2 + 36mn - 90n^2)$



445)  $(82x - 48y)(75x^2 + 95xy + 18y^2)$

446)  $(24m - 78n)(57m^2 - 42mn - 80n^2)$

447)  $(22x + 98y)(38x^2 + 21xy + 27y^2)$

448)  $(65x + 69y)(63x^2 + 80xy - 66y^2)$

449)  $(6x + 44y)(45x^2 - 58xy + 42y^2)$

450)  $(4x + 14y)(26x^2 + 6xy - 51y^2)$

451)  $(47u - 11v)(51u^2 + 64uv + 56v^2)$

452)  $(89x - 41y)(32x^2 - 73xy - 37y^2)$

453)  $(31u - 71v)(14u^2 - 9uv + 71v^2)$

454)  $(29x - 95y)(96x^2 + 49xy - 27y^2)$

455)  $(71a + 76b)(20a^2 - 88ab + 80b^2)$

456)  $(13x + 51y)(2x^2 - 25xy - 13y^2)$

457)  $(11a + 21b)(84a^2 + 34ab + 95b^2)$

458)  $(54x - 4y)(65x^2 + 97xy + y^2)$

459)  $(96m - 34n)(91m^2 - 40mn - 92n^2)$

460)  $(36m - 88n)(53m^2 + 82mn - 77n^2)$

461)  $(94x - 58y)(72x^2 + 19xy + 16y^2)$

462)  $(78x + 88y)(35x^2 - 55xy + 25y^2)$

463)  $(77x + 58y)(60x^2 + 8xy - 68y^2)$

464)  $(18x + 28y)(41x^2 + 67xy + 40y^2)$

465)  $(61x + 4y)(23x^2 - 71xy - 53y^2)$

466)  $(59u - 26v)(48u^2 - 7uv + 54v^2)$

467)  $(38x + 46y)(14x^2 - 39xy + 69y^2)$

468)  $(43u - 81v)(10u^2 - 86uv + 69v^2)$

469)  $(41x + 95y)(93x^2 - 22xy - 24y^2)$

470)  $(84a + 65b)(17a^2 + 36ab + 83b^2)$

471)  $(25x + 41y)(99x^2 + 100xy - 15y^2)$

472)  $(23a + 11b)(81a^2 - 38ab + 93b^2)$

473)  $(66x - 14y)(62x^2 + 21xy - y^2)$

474)  $(7m - 44n)(87m^2 + 85mn - 94n^2)$

475)  $(6x - 74y)(69x^2 - 53xy + 14y^2)$

476)  $(48m - 99n)(50m^2 + 6mn - 79n^2)$

477)  $(90x + 73y)(31x^2 + 69xy + 28y^2)$

478)  $(89x + 48y)(57x^2 - 68xy - 65y^2)$

479)  $(30x + 18y)(38x^2 - 10xy + 38y^2)$

480)  $(73x - 7y)(19x^2 + 54xy - 55y^2)$

481)  $(71u - 37v)(u^2 - 83uv + 52v^2)$

482)  $(12x - 62y)(26x^2 - 20xy - 41y^2)$

483)  $(55u - 91v)(7u^2 + 39uv + 67v^2)$

484)  $(53x + 85y)(90x^2 - 99xy - 27y^2)$

485)  $(96a + 55b)(14a^2 - 35ab + 81b^2)$

486)  $(37x + 25y)(96x^2 + 24xy - 12y^2)$

487)  $(35a + 43b)(a^2 + 91ab - 2b^2)$

488)  $(78x - 30y)(59x^2 - 50xy - 3y^2)$

489)  $(19m - 54n)(84m^2 + 8mn - 96n^2)$

490)  $(18x - 84y)(65x^2 + 72xy + 12y^2)$

491)  $(60m + 92n)(47m^2 - 66mn - 81n^2)$

492)  $(x + 62y)(28x^2 - 7xy + 26y^2)$

493)  $(98x + 85y)(90x^2 - 67xy - 25y^2)$

494)  $(42x + 7y)(35x^2 - 81xy + 41y^2)$

495)  $(85x - 17y)(16x^2 - 22xy - 52y^2)$

496)  $(83u - 47v)(98u^2 + 41uv + 50v^2)$

497)  $(25x - 77y)(23x^2 - 96xy - 43y^2)$

498)  $(67u + 99v)(4u^2 - 33uv + 65v^2)$

499)  $(65x + 69y)(86x^2 + 26xy - 29y^2)$

500)  $(7a + 45b)(11a^2 + 90ab + 79b^2)$

501)  $(49x + 15y)(93x^2 - 48xy - 14y^2)$

502)  $(48a - 10b)(74a^2 + 11ab + 94b^2)$

503)  $(90x - 40y)(55x^2 + 74xy - 60y^2)$

504)  $(30x - 95y)(62x^2 - 5xy + 10y^2)$

505)  $(31m - 65n)(81m^2 - 63mn - 98n^2)$

506)  $(72m + 82n)(43m^2 + 59mn - 83n^2)$

507)  $(54x - 3y)(31x^2 + 44xy + 39y^2)$

508)  $(12x + 22y)(50x^2 - 20xy - 69y^2)$

509)  $(14x + 52y)(25x^2 - 78xy + 24y^2)$

510)  $(97x - 33y)(13x^2 - 94xy - 55y^2)$

511)  $(37x - 87y)(19x^2 + 28xy - 45y^2)$

512)  $(79u + 89v)(u^2 + 92uv + 63v^2)$

513)  $(95u - 58v)(95u^2 - 35uv + 53v^2)$

514)  $(77x + 59y)(83x^2 - 50xy - 31y^2)$

515)  $(19a + 34b)(7a^2 + 13ab + 77b^2)$

516)  $(61x + 4y)(90x^2 + 77xy - 16y^2)$

517)  $(3a - 21b)(71a^2 - 61ab + 92b^2)$

518)  $(x - 50y)(52x^2 - 2xy - 2y^2)$

519)  $(86x + 96y)(59x^2 - 76xy + 13y^2)$

520)  $(84m + 66n)(40m^2 - 17mn - 86n^2)$

521)  $(43m - 80n)(77m^2 + 61mn - 95n^2)$

522)  $(26x + 41y)(21x^2 + 46xy + 22y^2)$

523)  $(8x - 43y)(9x^2 + 31xy - 57y^2)$

524)  $(67x - 13y)(28x^2 - 33xy + 37y^2)$

525)  $(68x + 11y)(47x^2 - 91xy - 71y^2)$

526)  $(50u - 68v)(92u^2 + 94uv + 51v^2)$

527)  $(91u + 78v)(98u^2 + 16uv + 66v^2)$

528)  $(33x + 48y)(80x^2 + 79xy - 33y^2)$

529)  $(49x - 98y)(16x^2 - 48xy - 42y^2)$

530)  $(31a + 19b)(4a^2 - 63ab + 75b^2)$

531)  $(13x - 61y)(49x^2 - 78xy - 4y^2)$

532)  $(15a - 36b)(68a^2 + 64ab + 90b^2)$

533)  $(56m - 91n)(74m^2 - 15mn - 97n^2)$

534)  $(73x - 6y)(86x^2 - 18xy + 45y^2)$

535)  $(98x + 86y)(56x^2 + 49xy + 11y^2)$

536)  $(96m + 56n)(37m^2 - 89mn - 83n^2)$

537)  $(38x + 31y)(18x^2 - 30xy + 20y^2)$

538)  $(80x + y)(43x^2 + 33xy - 73y^2)$

539)  $(79x - 24y)(25x^2 + 97xy + 35y^2)$

540)  $(20x - 54y)(6x^2 - 45xy - 59y^2)$

541)  $(62u - 83v)(88u^2 + 18uv + 49v^2)$

542)  $(61x + 93y)(13x^2 + 82xy - 44y^2)$

543)  $(45x + 38y)(76x^2 + 3xy - 30y^2)$

544)  $(2u + 63v)(95u^2 - 61uv + 64v^2)$

545)  $(43a + 8b)(58a^2 + 66ab + 78b^2)$

546)  $(85x - 17y)(83x^2 - 76xy - 20y^2)$

547)  $(25x - 71y)(46x^2 + 51xy - 6y^2)$

548)  $(27a - 46b)(64a^2 - 12ab + 87b^2)$

549)  $(68m + 100n)(71m^2 - 91mn - 99n^2)$

550)  $(9x + 75y)(52x^2 - 28xy + 9y^2)$

551)  $(7m + 45n)(34m^2 + 36mn - 85n^2)$

552)  $(50x + 15y)(15x^2 + 99xy + 23y^2)$

553)  $(92x - 9y)(40x^2 - 43xy - 70y^2)$

554)  $(91x - 39y)(21x^2 + 21xy + 33y^2)$

555)  $(32x - 64y)(3x^2 + 84xy - 61y^2)$

556)  $(75u - 94v)(85u^2 - 58uv + 47v^2)$

557)  $(73x + 82y)(9x^2 + 5xy - 46y^2)$

558)  $(14u + 52v)(92u^2 + 69uv + 61v^2)$

559)  $(57x + 28y)(73x^2 - 74xy - 32y^2)$

560)  $(55a - 2b)(54a^2 - 10ab + 76b^2)$

561)  $(98x - 27y)(80x^2 + 54xy - 17y^2)$

562)  $(39a - 57b)(61a^2 - 89ab + 85b^2)$

563)  $(37x - 87y)(42x^2 - 25xy - 8y^2)$

564)  $(80m + 89n)(68m^2 + 38mn + 100n^2)$

565)  $(21x + 60y)(49x^2 + 97xy + 7y^2)$

566)  $(20m + 35n)(30m^2 - 41mn - 87n^2)$

567)  $(62x + 5y)(12x^2 + 23xy + 21y^2)$

568)  $(2x - 50y)(18x^2 - 56xy + 36y^2)$

569)  $(3x - 20y)(37x^2 + 82xy - 72y^2)$

570)  $(44x - 74y)(100x^2 + 8xy - 58y^2)$

571)  $(87u + 97v)(82u^2 + 71uv + 45v^2)$

572)  $(85x + 72y)(6x^2 - 71xy - 48y^2)$

573)  $(26u + 42v)(88u^2 - 8uv + 59v^2)$

574)  $(69x + 12y)(70x^2 + 56xy - 34y^2)$

575)  $(67a - 13b)(51a^2 - 86ab + 74b^2)$

576)  $(9x - 42y)(76x^2 - 23xy - 19y^2)$

577)  $(51a - 67b)(58a^2 + 41ab + 88b^2)$

578)  $(49x - 97y)(39x^2 + 99xy - 5y^2)$

579)  $(92m + 79n)(64m^2 - 38mn + 98n^2)$

580)  $(33x + 49y)(46x^2 + 26xy + 5y^2)$

581)  $(76m + 24n)(27m^2 + 84mn - 89n^2)$

582)  $(74x - 5y)(8x^2 - 53xy + 19y^2)$

583)  $(15x - 30y)(34x^2 + 10xy - 74y^2)$

584)  $(58x - 60y)(15x^2 + 69xy + 33y^2)$

$$585) (56x - 90y)(97x^2 - 69xy - 60y^2)$$

$$586) (99u + 86v)(79u^2 - 5uv + 48v^2)$$

$$587) (40x + 56y)(3x^2 + 54xy - 50y^2)$$

$$588) (39u + 32v)(85u^2 - 84uv + 57v^2)$$

$$589) (22a - 23b)(48a^2 + 43ab + 72b^2)$$

$$590) (81x + 2y)(66x^2 - 20xy - 36y^2)$$

$$591) (21x - 53y)(73x^2 - 99xy - 21y^2)$$

$$592) (63a - 78b)(54a^2 - 36ab + 86b^2)$$

$$593) (5x + 93y)(36x^2 + 28xy - 7y^2)$$

$$594) (3m + 69n)(61m^2 + 87mn - 100n^2)$$

$$595) (45x + 39y)(42x^2 - 51xy + 7y^2)$$

$$596) (88m + 9n)(24m^2 + 13mn - 91n^2)$$

$$597) (86x - 16y)(5x^2 + 71xy + 17y^2)$$

$$598) (28x - 46y)(30x^2 - 66xy - 76y^2)$$

$$599) (70x - 71y)(12x^2 - 3xy + 31y^2)$$

$$600) (68x - 100y)(94x^2 + 56xy - 62y^2)$$

## Multiplying polynomials - Integers - Simplify product of binomials and trinomials

### Simplify integer product with two variables:

1)  $(x - 6y)(3x^2 + xy + 3y^2)$

$$3x^3 - 17x^2y - 3xy^2 - 18y^3$$

2)  $(4x - y)(x^2 - 4xy + 3y^2)$

$$4x^3 - 17x^2y + 16xy^2 - 3y^3$$

3)  $(7u - 4v)(8u^2 - 7uv + 7v^2)$

$$56u^3 - 81u^2v + 77uv^2 - 28v^3$$

4)  $(4u - v)(4u^2 + 8uv - 7v^2)$

$$16u^3 + 28u^2v - 36uv^2 + 7v^3$$

5)  $(6x + 4y)(3x^2 - 5xy - 7y^2)$

$$18x^3 - 18x^2y - 62xy^2 - 28y^3$$

6)  $(3x + y)(4x^2 - 7xy - 8y^2)$

$$12x^3 - 17x^2y - 31xy^2 - 8y^3$$

7)  $(8a + b)(6a^2 - 8ab + 4b^2)$

$$48a^3 - 58a^2b + 24ab^2 + 4b^3$$

8)  $(5a - 6b)(5a^2 + 7ab - 8b^2)$

$$25a^3 + 5a^2b - 82ab^2 + 48b^3$$

9)  $(3x + 6y)(7x^2 + 3xy - 8y^2)$

$$21x^3 + 51x^2y - 6xy^2 - 48y^3$$

10)  $(8x + 8y)(4x^2 + 2xy - 8y^2)$

$$32x^3 + 48x^2y - 48xy^2 - 64y^3$$

11)  $(2m - 3n)(m^2 - 2mn + 8n^2)$

$$2m^3 - 7m^2n + 22mn^2 - 24n^3$$

12)  $(4x - 6y)(8x^2 + xy - y^2)$

$$32x^3 - 44x^2y - 10xy^2 + 6y^3$$

13)  $(7m - n)(7m^2 - 3mn - n^2)$

$$49m^3 - 28m^2n - 4mn^2 + n^3$$

14)  $(x - 4y)(5x^2 - 8xy - 2y^2)$

$$5x^3 - 28x^2y + 30xy^2 + 8y^3$$

15)  $(4x + y)(2x^2 + 5xy - 2y^2)$

$$8x^3 + 22x^2y - 3xy^2 - 2y^3$$

16)  $(6x - y)(x^2 - 8xy - 2y^2)$

$$6x^3 - 49x^2y - 4xy^2 + 2y^3$$

17)  $(8x + 4y)(8x^2 + 4xy - 2y^2)$

$$64x^3 + 64x^2y - 8y^3$$

18)  $(3u + v)(5u^2 - 3uv - 6v^2)$

$$15u^3 - 4u^2v - 21uv^2 - 6v^3$$

19)  $(8u + 3v)(2u^2 - uv + 5v^2)$

$$16u^3 - 2u^2v + 37uv^2 + 15v^3$$

20)  $(2x + 8y)(6x^2 - 2xy - 2y^2)$

$$12x^3 + 44x^2y - 20xy^2 - 16y^3$$

21)  $(5x + 6y)(4x^2 + 3xy - 3y^2)$

$$20x^3 + 39x^2y + 3xy^2 - 18y^3$$

22)  $(4a - 3b)(7a^2 - 2ab + 4b^2)$

$$28a^3 - 29a^2b + 22ab^2 - 12b^3$$

23)  $(a - b)(3a^2 + 6ab + 4b^2)$

$$3a^3 + 3a^2b - 2ab^2 - 4b^3$$

24)  $(4x - 4y)(2x^2 - 7xy + 3y^2)$

$$8x^3 - 36x^2y + 40xy^2 - 12y^3$$

$$25) (7x - 6y)(5x^2 - 6xy + 4y^2) \\ 35x^3 - 72x^2y + 64xy^2 - 24y^3$$

$$27) (x - 2y)(6x^2 + xy + 3y^2) \\ 6x^3 - 11x^2y + xy^2 - 6y^3$$

$$29) (5x + y)(3x^2 - 7xy + y^2) \\ 15x^3 - 32x^2y - 2xy^2 + y^3$$

$$31) (5x + 8y)(6x^2 - 5xy - 7y^2) \\ 30x^3 + 23x^2y - 75xy^2 - 56y^3$$

$$33) (2x + 3y)(7x^2 + 8xy - 7y^2) \\ 14x^3 + 37x^2y + 10xy^2 - 21y^3$$

$$35) (7x - 4y)(7x^2 + 2xy + 8y^2) \\ 49x^3 - 14x^2y + 48xy^2 - 32y^3$$

$$37) (3x - 2y)(3x^2 + xy - y^2) \\ 9x^3 - 3x^2y - 5xy^2 + 2y^3$$

$$39) (2x + 6y)(8x^2 - 2xy + 8y^2) \\ 16x^3 + 44x^2y + 4xy^2 + 48y^3$$

$$41) (6x + 3y)(4x^2 + 8xy - 2y^2) \\ 24x^3 + 60x^2y + 12xy^2 - 6y^3$$

$$43) (8m + 8n)(2m^2 + 4mn - 2n^2) \\ 16m^3 + 48m^2n + 16mn^2 - 16n^3$$

$$45) (5x - 7y)(7x^2 + 3xy + 5y^2) \\ 35x^3 - 34x^2y + 4xy^2 - 35y^3$$

$$47) (x - 4y)(3x^2 + 2xy + 5y^2) \\ 3x^3 - 10x^2y - 3xy^2 - 20y^3$$

$$49) (6x - 2y)(8x^2 - 7xy + 4y^2) \\ 48x^3 - 58x^2y + 38xy^2 - 8y^3$$

$$51) (3x + y)(5x^2 - 7xy + 3y^2) \\ 15x^3 - 16x^2y + 2xy^2 + 3y^3$$

$$26) (6m + n)(8m^2 + 5mn + 3n^2) \\ 48m^3 + 38m^2n + 23mn^2 + 3n^3$$

$$28) (3m + 4n)(4m^2 + 4mn - 6n^2) \\ 12m^3 + 28m^2n - 2mn^2 - 24n^3$$

$$30) (5x - 5y)(4x^2 + 2xy - 5y^2) \\ 20x^3 - 10x^2y - 35xy^2 + 25y^3$$

$$32) (8u - 4v)(4u^2 + 7uv - 8v^2) \\ 32u^3 + 40u^2v - 92uv^2 + 32v^3$$

$$34) (x - 6y)(x^2 + 3xy - 8y^2) \\ x^3 - 3x^2y - 26xy^2 + 48y^3$$

$$36) (a + b)(4a^2 - 2ab - b^2) \\ 4a^3 + 2a^2b - 3ab^2 - b^3$$

$$38) (4u - v)(4u^2 - 8uv - 7v^2) \\ 16u^3 - 36u^2v - 20uv^2 + 7v^3$$

$$40) (6a + 3b)(a^2 - 3ab - b^2) \\ 6a^3 - 15a^2b - 15ab^2 - 3b^3$$

$$42) (2m + 6n)(6m^2 - 4mn - 2n^2) \\ 12m^3 + 28m^2n - 28mn^2 - 12n^3$$

$$44) (x - 4y)(4x^2 - 3xy - 3y^2) \\ 4x^3 - 19x^2y + 9xy^2 + 12y^3$$

$$46) (7x - y)(5x^2 - xy + 5y^2) \\ 35x^3 - 12x^2y + 36xy^2 - 5y^3$$

$$48) (4u + v)(2u^2 - 2uv + 4v^2) \\ 8u^3 - 6u^2v + 14uv^2 + 4v^3$$

$$50) (8u - 8v)(8u^2 + 4uv - 4v^2) \\ 64u^3 - 32u^2v - 64uv^2 + 32v^3$$

$$52) (6a + 6b)(2a^2 + 5ab + 3b^2) \\ 12a^3 + 42a^2b + 48ab^2 + 18b^3$$



$$53) (8x + 3y)(2x^2 - 6xy + y^2) \\ 16x^3 - 42x^2y - 10xy^2 + 3y^3$$

$$55) (5x - 4y)(6x^2 - 7xy + 4y^2) \\ 30x^3 - 59x^2y + 48xy^2 - 16y^3$$

$$57) (2x - y)(2x^2 - xy - 7y^2) \\ 4x^3 - 4x^2y - 13xy^2 + 7y^3$$

$$59) (7x + y)(7x^2 + 7xy - 8y^2) \\ 49x^3 + 56x^2y - 49xy^2 - 8y^3$$

$$61) (3x + 3y)(3x^2 + 6xy - 8y^2) \\ 9x^3 + 27x^2y - 6xy^2 - 24y^3$$

$$63) (3x + 3y)(6x^2 + xy - y^2) \\ 18x^3 + 21x^2y - 3y^3$$

$$65) (5u + 8v)(4u^2 - 3uv - v^2) \\ 20u^3 + 17u^2v - 29uv^2 - 8v^3$$

$$67) (2a - 7b)(6a^2 - 2ab - 5b^2) \\ 12a^3 - 46a^2b + 4ab^2 + 35b^3$$

$$69) (8a - 4b)(5a^2 + 4ab - 2b^2) \\ 40a^3 + 12a^2b - 32ab^2 + 8b^3$$

$$71) (3m - 2n)(m^2 + 3mn + 5n^2) \\ 3m^3 + 7m^2n + 9mn^2 - 10n^3$$

$$73) (m - 3n)(2m^2 + 4mn - 5n^2) \\ 2m^3 - 2m^2n - 17mn^2 + 15n^3$$

$$75) (6x + 3y)(2x^2 - 7xy + 4y^2) \\ 12x^3 - 36x^2y + 3xy^2 + 12y^3$$

$$77) (2x - 4y)(8x^2 - 7xy + 3y^2) \\ 16x^3 - 46x^2y + 34xy^2 - 12y^3$$

$$79) (8x - 2y)(3x^2 - 8xy - 6y^2) \\ 24x^3 - 70x^2y - 32xy^2 + 12y^3$$

$$54) (2a + 8b)(8a^2 + 4ab - 6b^2) \\ 16a^3 + 72a^2b + 20ab^2 - 48b^3$$

$$56) (7m - 7n)(3m^2 - 4mn - 7n^2) \\ 21m^3 - 49m^2n - 21mn^2 + 49n^3$$

$$58) (4m - 4n)(7m^2 - 7mn - n^2) \\ 28m^3 - 56m^2n + 24mn^2 + 4n^3$$

$$60) (x - 2y)(4x^2 - 6xy - 8y^2) \\ 4x^3 - 14x^2y + 4xy^2 + 16y^3$$

$$62) (6x - 6y)(x^2 - xy + 5y^2) \\ 6x^3 - 12x^2y + 36xy^2 - 30y^3$$

$$64) (5u - 7v)(3u^2 - uv + 6v^2) \\ 15u^3 - 26u^2v + 37uv^2 - 42v^3$$

$$66) (8x - 4y)(2x^2 - 2xy - 6y^2) \\ 16x^3 - 24x^2y - 40xy^2 + 24y^3$$

$$68) (4x - 2y)(7x^2 + 8xy - 2y^2) \\ 28x^3 + 18x^2y - 24xy^2 + 4y^3$$

$$70) (x + y)(4x^2 + 8xy + 5y^2) \\ 4x^3 + 12x^2y + 13xy^2 + 5y^3$$

$$72) (7x + 3y)(8x^2 - xy + 5y^2) \\ 56x^3 + 17x^2y + 32xy^2 + 15y^3$$

$$74) (3x + 5y)(5x^2 - 2xy + 4y^2) \\ 15x^3 + 19x^2y + 2xy^2 + 20y^3$$

$$76) (8x + 8y)(x^2 - 3xy + 4y^2) \\ 8x^3 - 16x^2y + 8xy^2 + 32y^3$$

$$78) (4u - 7v)(6u^2 + 5uv - 6v^2) \\ 24u^3 - 22u^2v - 59uv^2 + 42v^3$$

$$80) (u - 5v)(2u^2 + 4uv - 6v^2) \\ 2u^3 - 6u^2v - 26uv^2 + 30v^3$$

$$81) (3x + y)(5x^2 - 3xy - 8y^2) \\ 15x^3 - 4x^2y - 27xy^2 - 8y^3$$

$$82) (7a - 2b)(6a^2 + 3ab - 7b^2) \\ 42a^3 + 9a^2b - 55ab^2 + 14b^3$$

$$83) (8x - y)(2x^2 + 2xy - 2y^2) \\ 16x^3 + 14x^2y - 18xy^2 + 2y^3$$

$$84) (3a - b)(3a^2 - 7ab + 2b^2) \\ 9a^3 - 24a^2b + 13ab^2 - 2b^3$$

$$85) (6x + 5y)(x^2 + 7xy - 8y^2) \\ 6x^3 + 47x^2y - 13xy^2 - 40y^3$$

$$86) (7m + 7n)(5m^2 - 8mn + 5n^2) \\ 35m^3 - 21m^2n - 21mn^2 + 35n^3$$

$$87) (2x + 8y)(6x^2 + 6xy + 6y^2) \\ 12x^3 + 60x^2y + 60xy^2 + 48y^3$$

$$88) (5m - 4n)(4m^2 + 2mn - n^2) \\ 20m^3 - 6m^2n - 13mn^2 + 4n^3$$

$$89) (8x - 7y)(3x^2 + 5xy - y^2) \\ 24x^3 + 19x^2y - 43xy^2 + 7y^3$$

$$90) (x - 2y)(8x^2 - xy + y^2) \\ 8x^3 - 17x^2y + 3xy^2 - 2y^3$$

$$91) (5x - 5y)(7x^2 - 3xy - y^2) \\ 35x^3 - 50x^2y + 10xy^2 + 5y^3$$

$$92) (7x + y)(6x^2 - 2xy + 4y^2) \\ 42x^3 - 8x^2y + 26xy^2 + 4y^3$$

$$93) (5u - 6v)(2u^2 - 2uv + 6v^2) \\ 10u^3 - 22u^2v + 42uv^2 - 36v^3$$

$$94) (4x + 3y)(x^2 + 8xy - 2y^2) \\ 4x^3 + 35x^2y + 16xy^2 - 6y^3$$

$$95) (6u + v)(4u^2 + 6uv - 8v^2) \\ 24u^3 + 40u^2v - 42uv^2 - 8v^3$$

$$96) (4x + y)(4x^2 + 5xy - 7y^2) \\ 16x^3 + 24x^2y - 23xy^2 - 7y^3$$

$$97) (3a + 2b)(5a^2 + 3ab + 5b^2) \\ 15a^3 + 19a^2b + 21ab^2 + 10b^3$$

$$98) (5x + 8y)(2x^2 + 7xy + 5y^2) \\ 10x^3 + 51x^2y + 81xy^2 + 40y^3$$

$$99) (8a - 4b)(a^2 + 2ab + 4b^2) \\ 8a^3 + 12a^2b + 24ab^2 - 16b^3$$

$$100) (2x - 7y)(8x^2 - 2xy + 4y^2) \\ 16x^3 - 60x^2y + 22xy^2 - 28y^3$$

$$101) (8m - 6n)(12m^2 + 12mn + 10n^2) \\ 96m^3 + 24m^2n + 8mn^2 - 60n^3$$

$$102) (5x + 8y)(5x^2 + 2xy + 12y^2) \\ 25x^3 + 50x^2y + 76xy^2 + 96y^3$$

$$103) (7m + 4n)(10m^2 - 8mn - 5n^2) \\ 70m^3 - 16m^2n - 67mn^2 - 20n^3$$

$$104) (2x - 10y)(3x^2 + 3xy - y^2) \\ 6x^3 - 24x^2y - 32xy^2 + 10y^3$$

$$105) (5x - 6y)(2x^2 + 6xy - 3y^2) \\ 10x^3 + 18x^2y - 51xy^2 + 18y^3$$

$$106) (5x + 4y)(8x^2 - 8xy + y^2) \\ 40x^3 - 8x^2y - 27xy^2 + 4y^3$$

$$107) (12u - 11v)(6u^2 + 3uv + 4v^2) \\ 72u^3 - 30u^2v + 15uv^2 - 44v^3$$

$$108) (2x + 10y)(6x^2 - 7xy + 6y^2) \\ 12x^3 + 46x^2y - 58xy^2 + 60y^3$$

$$109) (2x + 10y)(7x^2 + 2xy + 8y^2)$$

$$14x^3 + 74x^2y + 36xy^2 + 80y^3$$

$$111) (10x - 4y)(3x^2 + 4xy + 9y^2)$$

$$30x^3 + 28x^2y + 74xy^2 - 36y^3$$

$$113) (9x + 6y)(9x^2 + 8xy - 5y^2)$$

$$81x^3 + 126x^2y + 3xy^2 - 30y^3$$

$$115) (7m - 12n)(7m^2 + 9mn + 2n^2)$$

$$49m^3 - 21m^2n - 94mn^2 - 24n^3$$

$$117) (4x + 2y)(12x^2 + 6xy + 2y^2)$$

$$48x^3 + 48x^2y + 20xy^2 + 4y^3$$

$$119) (4x + 12y)(10x^2 + 10xy + 5y^2)$$

$$40x^3 + 160x^2y + 140xy^2 + 60y^3$$

$$121) (x + 8y)(10x^2 + 6xy - 11y^2)$$

$$10x^3 + 86x^2y + 37xy^2 - 88y^3$$

$$123) (x + 4y)(x^2 - 3xy - 4y^2)$$

$$x^3 + x^2y - 16xy^2 - 16y^3$$

$$125) (12u - 10v)(4u^2 - 6uv - 4v^2)$$

$$48u^3 - 112u^2v + 12uv^2 + 40v^3$$

$$127) (11a + 11b)(4a^2 - 3ab + b^2)$$

$$44a^3 + 11a^2b - 22ab^2 + 11b^3$$

$$129) (6a - 4b)(9a^2 + ab + 11b^2)$$

$$54a^3 - 30a^2b + 62ab^2 - 44b^3$$

$$131) (3x + 2y)(7x^2 + 2xy - 8y^2)$$

$$21x^3 + 20x^2y - 20xy^2 - 16y^3$$

$$133) (3x - 12y)(5x^2 - 12xy - 5y^2)$$

$$15x^3 - 96x^2y + 129xy^2 + 60y^3$$

$$135) (5x - 2y)(10x^2 + 3xy - 9y^2)$$

$$50x^3 - 5x^2y - 51xy^2 + 18y^3$$

$$110) (12u + 7v)(11u^2 + 8uv + 7v^2)$$

$$132u^3 + 173u^2v + 140uv^2 + 49v^3$$

$$112) (12a - 8b)(9a^2 - 6ab - 7b^2)$$

$$108a^3 - 144a^2b - 36ab^2 + 56b^3$$

$$114) (7a + 2b)(a^2 + 5ab - 4b^2)$$

$$7a^3 + 37a^2b - 18ab^2 - 8b^3$$

$$116) (9x - 9y)(7x^2 - 6xy - 2y^2)$$

$$63x^3 - 117x^2y + 36xy^2 + 18y^3$$

$$118) (7m - 2n)(5m^2 - 5mn + 3n^2)$$

$$35m^3 - 45m^2n + 31mn^2 - 6n^3$$

$$120) (4x + 5y)(3x^2 - 4xy - 9y^2)$$

$$12x^3 - x^2y - 56xy^2 - 45y^3$$

$$122) (x - 6y)(8x^2 + 10xy - 8y^2)$$

$$8x^3 - 38x^2y - 68xy^2 + 48y^3$$

$$124) (11u - 9v)(7u^2 - 3uv - 4v^2)$$

$$77u^3 - 96u^2v - 17uv^2 + 36v^3$$

$$126) (9x - 11y)(11x^2 + xy - y^2)$$

$$99x^3 - 112x^2y - 20xy^2 + 11y^3$$

$$128) (9x - 5y)(3x^2 + 10xy + 9y^2)$$

$$27x^3 + 75x^2y + 31xy^2 - 45y^3$$

$$130) (8x + 10y)(x^2 - 2xy - 12y^2)$$

$$8x^3 - 6x^2y - 116xy^2 - 120y^3$$

$$132) (6m - 8n)(12m^2 - mn - 7n^2)$$

$$72m^3 - 102m^2n - 34mn^2 + 56n^3$$

$$134) (6m + 6n)(2m^2 - 12mn - 10n^2)$$

$$12m^3 - 60m^2n - 132mn^2 - 60n^3$$

$$136) (3x - 2y)(10x^2 - xy - 2y^2)$$

$$30x^3 - 23x^2y - 4xy^2 + 4y^3$$

$$137) (x - 11y)(3x^2 + 7xy + 3y^2) \\ 3x^3 - 26x^2y - 74xy^2 - 33y^3$$

$$139) (11x - 3y)(x^2 + 11xy + 3y^2) \\ 11x^3 + 118x^2y - 9y^3$$

$$141) (8x + 8y)(6x^2 + 4xy - 11y^2) \\ 48x^3 + 80x^2y - 56xy^2 - 88y^3$$

$$143) (8x - 3y)(7x^2 - 7xy + 9y^2) \\ 56x^3 - 77x^2y + 93xy^2 - 27y^3$$

$$145) (2x + 11y)(9x^2 - 5xy + 3y^2) \\ 18x^3 + 89x^2y - 49xy^2 + 33y^3$$

$$147) (2x - 4y)(2x^2 + 6xy + 7y^2) \\ 4x^3 + 4x^2y - 10xy^2 - 28y^3$$

$$149) (2x + 6y)(12x^2 - 8xy + 10y^2) \\ 24x^3 + 56x^2y - 28xy^2 + 60y^3$$

$$151) (12x + 6y)(10x^2 - 7xy - 10y^2) \\ 120x^3 - 24x^2y - 162xy^2 - 60y^3$$

$$153) (10x - 8y)(5x^2 - 4xy - 12y^2) \\ 50x^3 - 80x^2y - 88xy^2 + 96y^3$$

$$155) (10u + 12v)(8u^2 - 7uv + 2v^2) \\ 80u^3 + 26u^2v - 64uv^2 + 24v^3$$

$$157) (4a - 2b)(6a^2 - 2ab + 6b^2) \\ 24a^3 - 20a^2b + 28ab^2 - 12b^3$$

$$159) (4a + 8b)(12a^2 + 9ab + 9b^2) \\ 48a^3 + 132a^2b + 108ab^2 + 72b^3$$

$$161) (4m - 7n)(9m^2 - 12mn - 12n^2) \\ 36m^3 - 111m^2n + 36mn^2 + 84n^3$$

$$163) (12m + 4n)(2m^2 - mn - 2n^2) \\ 24m^3 - 4m^2n - 28mn^2 - 8n^3$$

$$138) (11u + 8v)(8u^2 + 4uv + 9v^2) \\ 88u^3 + 108u^2v + 131uv^2 + 72v^3$$

$$140) (10u - 6v)(u^2 - 10uv + 12v^2) \\ 10u^3 - 106u^2v + 180uv^2 - 72v^3$$

$$142) (5a + 4b)(11a^2 - 6ab - 9b^2) \\ 55a^3 + 14a^2b - 69ab^2 - 36b^3$$

$$144) (5a - 11b)(4a^2 + 5ab - 6b^2) \\ 20a^3 - 19a^2b - 85ab^2 + 66b^3$$

$$146) (5m - 9n)(2m^2 - 3mn + 9n^2) \\ 10m^3 - 33m^2n + 72mn^2 - 81n^3$$

$$148) (3m - 9n)(m^2 + 8mn - 3n^2) \\ 3m^3 + 15m^2n - 81mn^2 + 27n^3$$

$$150) (12x + 7y)(5x^2 - 3xy - 7y^2) \\ 60x^3 - x^2y - 105xy^2 - 49y^3$$

$$152) (10u + 2v)(3u^2 + 7uv - 8v^2) \\ 30u^3 + 76u^2v - 66uv^2 - 16v^3$$

$$154) (7x - 2y)(3x^2 - 3xy + y^2) \\ 21x^3 - 27x^2y + 13xy^2 - 2y^3$$

$$156) (7x + 9y)(x^2 + 8xy + 4y^2) \\ 7x^3 + 65x^2y + 100xy^2 + 36y^3$$

$$158) (7x - 6y)(6x^2 + 12xy + 8y^2) \\ 42x^3 + 48x^2y - 16xy^2 - 48y^3$$

$$160) (2x + 4y)(4x^2 - 2xy + 11y^2) \\ 8x^3 + 12x^2y + 14xy^2 + 44y^3$$

$$162) (x - 10y)(9x^2 + 9xy - 4y^2) \\ 9x^3 - 81x^2y - 94xy^2 + 40y^3$$

$$164) (x - 12y)(12x^2 + 10xy + 4y^2) \\ 12x^3 - 134x^2y - 116xy^2 - 48y^3$$

$$165) (12x - 4y)(7x^2 + 10xy + 2y^2) \\ 84x^3 + 92x^2y - 16xy^2 - 8y^3$$

$$167) (11x + 6y)(5x^2 - 11xy + 5y^2) \\ 55x^3 - 91x^2y - 11xy^2 + 30y^3$$

$$169) (6x - 8y)(11x^2 + 9xy - 3y^2) \\ 66x^3 - 34x^2y - 90xy^2 + 24y^3$$

$$171) (6x + 2y)(8x^2 + 12xy - 6y^2) \\ 48x^3 + 88x^2y - 12xy^2 - 12y^3$$

$$173) (6x + 12y)(x^2 - 9xy - 3y^2) \\ 6x^3 - 42x^2y - 126xy^2 - 36y^3$$

$$175) (x - 2y)(12x^2 + 2xy + y^2) \\ 12x^3 - 22x^2y - 3xy^2 - 2y^3$$

$$177) (3x - y)(6x^2 - 7xy + 2y^2) \\ 18x^3 - 27x^2y + 13xy^2 - 2y^3$$

$$179) (11x - 10y)(2x^2 + 7xy - 8y^2) \\ 22x^3 + 57x^2y - 158xy^2 + 80y^3$$

$$181) (8x + 4y)(7x^2 + 3xy - 7y^2) \\ 56x^3 + 52x^2y - 44xy^2 - 28y^3$$

$$183) (8u - 11v)(5u^2 + 7uv - 3v^2) \\ 40u^3 + u^2v - 101uv^2 + 33v^3$$

$$185) (8u - v)(11u^2 - 6uv + 10v^2) \\ 88u^3 - 59u^2v + 86uv^2 - 10v^3$$

$$187) (3a - 8b)(8a^2 + 5ab + 11b^2) \\ 24a^3 - 49a^2b - 7ab^2 - 88b^3$$

$$189) (2a + 2b)(a^2 + 9ab - 11b^2) \\ 2a^3 + 20a^2b - 4ab^2 - 22b^3$$

$$191) (2m - 12n)(12m^2 - 5mn - 7n^2) \\ 24m^3 - 154m^2n + 46mn^2 + 84n^3$$

$$166) (9x + 10y)(2x^2 + 3xy + 10y^2) \\ 18x^3 + 47x^2y + 120xy^2 + 100y^3$$

$$168) (9u - 4v)(10u^2 + 11uv + 7v^2) \\ 90u^3 + 59u^2v + 19uv^2 - 28v^3$$

$$170) (9u + 6v)(3u^2 - 10uv - 8v^2) \\ 27u^3 - 72u^2v - 132uv^2 - 48v^3$$

$$172) (3a - 9b)(a^2 + ab - 4b^2) \\ 3a^3 - 6a^2b - 21ab^2 + 36b^3$$

$$174) (3a + 2b)(6a^2 + 12ab - b^2) \\ 18a^3 + 48a^2b + 21ab^2 - 2b^3$$

$$176) (3m - 6n)(4m^2 - 9mn + 3n^2) \\ 12m^3 - 51m^2n + 63mn^2 - 18n^3$$

$$178) (11m + 4n)(10m^2 + 3mn + 6n^2) \\ 110m^3 + 73m^2n + 78mn^2 + 24n^3$$

$$180) (12x - 10y)(3x^2 - 10xy + 4y^2) \\ 36x^3 - 150x^2y + 148xy^2 - 40y^3$$

$$182) (11x - 6y)(12x^2 - 5xy - 9y^2) \\ 132x^3 - 127x^2y - 69xy^2 + 54y^3$$

$$184) (5x + 10y)(5x^2 + 4xy - y^2) \\ 25x^3 + 70x^2y + 35xy^2 - 10y^3$$

$$186) (5x - 4y)(3x^2 + 8xy + 2y^2) \\ 15x^3 + 28x^2y - 22xy^2 - 8y^3$$

$$188) (5x + 6y)(9x^2 - 6xy + 12y^2) \\ 45x^3 + 24x^2y + 24xy^2 + 72y^3$$

$$190) (x - 8y)(6x^2 - 9xy - 2y^2) \\ 6x^3 - 57x^2y + 70xy^2 + 16y^3$$

$$192) (11x + y)(5x^2 - 6xy - 3y^2) \\ 55x^3 - 61x^2y - 39xy^2 - 3y^3$$

193)  $(10m - 2n)(4m^2 - mn - 4n^2)$

$40m^3 - 18m^2n - 38mn^2 + 8n^3$

195)  $(10x + 8y)(10x^2 + 10xy + 7y^2)$

$100x^3 + 180x^2y + 150xy^2 + 56y^3$

197)  $(10x - 6y)(7x^2 - 3xy + 10y^2)$

$70x^3 - 72x^2y + 118xy^2 - 60y^3$

199)  $(4x + 4y)(2x^2 - 12xy - 8y^2)$

$8x^3 - 40x^2y - 80xy^2 - 32y^3$

201)  $(2x + 14y)(3x^2 + 4xy + 9y^2)$

$6x^3 + 50x^2y + 74xy^2 + 126y^3$

203)  $(16x - 18y)(10x^2 + xy - 10y^2)$

$160x^3 - 164x^2y - 178xy^2 + 180y^3$

205)  $(18m + 10n)(20m^2 - 19mn - 5n^2)$

$360m^3 - 142m^2n - 280mn^2 - 50n^3$

207)  $(7x - 2y)(18x^2 + 4xy - 15y^2)$

$126x^3 - 8x^2y - 113xy^2 + 30y^3$

209)  $(20x - 2y)(17x^2 + xy + 8y^2)$

$340x^3 - 14x^2y + 158xy^2 - 16y^3$

211)  $(5x + 6y)(4x^2 + 8xy - 11y^2)$

$20x^3 + 64x^2y - 7xy^2 - 66y^3$

213)  $(2x - 6y)(14x^2 - 10xy + 12y^2)$

$28x^3 - 104x^2y + 84xy^2 - 72y^3$

215)  $(4u - 18v)(11u^2 + 11uv - 16v^2)$

$44u^3 - 154u^2v - 262uv^2 + 288v^3$

217)  $(13x + 11y)(15x^2 + 16xy + 7y^2)$

$195x^3 + 373x^2y + 267xy^2 + 77y^3$

219)  $(16a - 2b)(18a^2 + 5ab - 12b^2)$

$288a^3 + 44a^2b - 202ab^2 + 24b^3$

194)  $(12x + 12y)(10x^2 - 4xy - 2y^2)$

$120x^3 + 72x^2y - 72xy^2 - 24y^3$

196)  $(7x - 3y)(2x^2 + 8xy + 4y^2)$

$14x^3 + 50x^2y + 4xy^2 - 12y^3$

198)  $(7u - 10v)(9u^2 + 12uv + 4v^2)$

$63u^3 - 6u^2v - 92uv^2 - 40v^3$

200)  $(7u - v)(12u^2 - 10uv + 4v^2)$

$84u^3 - 82u^2v + 38uv^2 - 4v^3$

202)  $(20a - 7b)(13a^2 - 14ab - 7b^2)$

$260a^3 - 371a^2b - 42ab^2 + 49b^3$

204)  $(x - 10y)(10x^2 + 7xy + 4y^2)$

$10x^3 - 93x^2y - 66xy^2 - 40y^3$

206)  $(4a + 2b)(5a^2 + 13ab - 14b^2)$

$20a^3 + 62a^2b - 30ab^2 - 28b^3$

208)  $(3m + 18n)(7m^2 - 13mn + 17n^2)$

$21m^3 + 87m^2n - 183mn^2 + 306n^3$

210)  $(9x - 14y)(15x^2 - 16xy - 2y^2)$

$135x^3 - 354x^2y + 206xy^2 + 28y^3$

212)  $(11u + 14v)(3u^2 + 5uv + 3v^2)$

$33u^3 + 97u^2v + 103uv^2 + 42v^3$

214)  $(8x + 2y)(x^2 - 13xy - 7y^2)$

$8x^3 - 102x^2y - 82xy^2 - 14y^3$

216)  $(10a - 10b)(11a^2 + 8ab + 7b^2)$

$110a^3 - 30a^2b - 10ab^2 - 70b^3$

218)  $(6x + 19y)(8x^2 - 9xy - 3y^2)$

$48x^3 + 98x^2y - 189xy^2 - 57y^3$

220)  $(12x + 18y)(8x^2 - 12xy + 11y^2)$

$96x^3 - 84xy^2 + 198y^3$

$$221) (8m + 7n)(18m^2 + 11mn + 2n^2)$$

$$144m^3 + 214m^2n + 93mn^2 + 14n^3$$

$$223) (11x - 6y)(15x^2 - 9xy + 15y^2)$$

$$165x^3 - 189x^2y + 219xy^2 - 90y^3$$

$$225) (14m + 15n)(5m^2 + 8mn - 17n^2)$$

$$70m^3 + 187m^2n - 118mn^2 - 255n^3$$

$$227) (19x - y)(20x^2 + 9xy - 7y^2)$$

$$380x^3 + 151x^2y - 142xy^2 + 7y^3$$

$$229) (13x - 9y)(12x^2 + 12xy - 13y^2)$$

$$156x^3 + 48x^2y - 277xy^2 + 117y^3$$

$$231) (17x + 7y)(6x^2 + 12xy + 4y^2)$$

$$102x^3 + 246x^2y + 152xy^2 + 28y^3$$

$$233) (6a - 5b)(16a^2 - 5ab - 5b^2)$$

$$96a^3 - 110a^2b - 5ab^2 + 25b^3$$

$$235) (8x - 18y)(13x^2 + 15xy - y^2)$$

$$104x^3 - 114x^2y - 278xy^2 + 18y^3$$

$$237) (2x + 15y)(5x^2 + 9xy - 14y^2)$$

$$10x^3 + 93x^2y + 107xy^2 - 210y^3$$

$$239) (10x + 20y)(2x^2 - 5xy + 12y^2)$$

$$20x^3 - 10x^2y + 20xy^2 + 240y^3$$

$$241) (6u - v)(20u^2 + 10uv + 3v^2)$$

$$120u^3 + 40u^2v + 8uv^2 - 3v^3$$

$$243) (12u + 7v)(20u^2 + 16uv - 15v^2)$$

$$240u^3 + 332u^2v - 68uv^2 - 105v^3$$

$$245) (9x - 13y)(17x^2 - 10xy + 16y^2)$$

$$153x^3 - 311x^2y + 274xy^2 - 208y^3$$

$$247) (11a - 17b)(6a^2 + 19ab + 20b^2)$$

$$66a^3 + 107a^2b - 103ab^2 - 340b^3$$

$$222) (18x - 14y)(15x^2 - 15xy - 8y^2)$$

$$270x^3 - 480x^2y + 66xy^2 + 112y^3$$

$$224) (20x - 18y)(4x^2 + 6xy + 5y^2)$$

$$80x^3 + 48x^2y - 8xy^2 - 90y^3$$

$$226) (16u + 3v)(2u^2 - 12uv - 4v^2)$$

$$32u^3 - 186u^2v - 100uv^2 - 12v^3$$

$$228) (u + 11v)(u^2 - 15uv + 19v^2)$$

$$u^3 - 4u^2v - 146uv^2 + 209v^3$$

$$230) (15u + 19v)(9u^2 - 9uv - 9v^2)$$

$$135u^3 + 36u^2v - 306uv^2 - 171v^3$$

$$232) (11a - 19b)(12a^2 + 14ab - 18b^2)$$

$$132a^3 - 74a^2b - 464ab^2 + 342b^3$$

$$234) (3x - 2y)(19x^2 + 15xy - 18y^2)$$

$$57x^3 + 7x^2y - 84xy^2 + 36y^3$$

$$236) (19m + 3n)(16m^2 - 8mn + 17n^2)$$

$$304m^3 - 104m^2n + 299mn^2 + 51n^3$$

$$238) (4m + 12n)(2m^2 - 11mn - 10n^2)$$

$$8m^3 - 20m^2n - 172mn^2 - 120n^3$$

$$240) (x - 9y)(13x^2 + 13xy - 19y^2)$$

$$13x^3 - 104x^2y - 136xy^2 + 171y^3$$

$$242) (3x + 19y)(10x^2 - 8xy - 6y^2)$$

$$30x^3 + 166x^2y - 170xy^2 - 114y^3$$

$$244) (5u + 16v)(7u^2 + 13uv - 2v^2)$$

$$35u^3 + 177u^2v + 198uv^2 - 32v^3$$

$$246) (15x - 5y)(17x^2 - 4xy - 11y^2)$$

$$255x^3 - 145x^2y - 145xy^2 + 55y^3$$

$$248) (7x + 3y)(3x^2 - 7xy + 11y^2)$$

$$21x^3 - 40x^2y + 56xy^2 + 33y^3$$

249)  $(17a - 9b)(14a^2 + 16ab + 2b^2)$

$238a^3 + 146a^2b - 110ab^2 - 18b^3$

250)  $(13x + 12y)(3x^2 - xy - 7y^2)$

$39x^3 + 23x^2y - 103xy^2 - 84y^3$

251)  $(10m - 10n)(11m^2 - 17mn + 20n^2)$

$110m^3 - 280m^2n + 370mn^2 - 200n^3$

252)  $(19x + 20y)(11x^2 - 4xy + 15y^2)$

$209x^3 + 144x^2y + 205xy^2 + 300y^3$

253)  $(15m - n)(18m^2 + 6mn + 13n^2)$

$270m^3 + 72m^2n + 189mn^2 - 13n^3$

254)  $(12x - 13y)(10x^2 - 7xy - 12y^2)$

$120x^3 - 214x^2y - 53xy^2 + 156y^3$

255)  $(x - 10y)(17x^2 + 19xy + 6y^2)$

$17x^3 - 151x^2y - 184xy^2 - 60y^3$

256)  $(18u - 4v)(18u^2 - uv + 10v^2)$

$324u^3 - 90u^2v + 184uv^2 - 40v^3$

257)  $(14x + 16y)(7x^2 + 14xy + y^2)$

$98x^3 + 308x^2y + 238xy^2 + 16y^3$

258)  $(2u + 4v)(18u^2 - 3uv - 8v^2)$

$36u^3 + 66u^2v - 28uv^2 - 32v^3$

259)  $(20x - 17y)(15x^2 + 20xy - 18y^2)$

$300x^3 + 145x^2y - 700xy^2 + 306y^3$

260)  $(16u + 12v)(4u^2 - 6uv + 14v^2)$

$64u^3 - 48u^2v + 152uv^2 + 168v^3$

261)  $(5x - 8y)(15x^2 + 17xy + 5y^2)$

$75x^3 - 35x^2y - 111xy^2 - 40y^3$

262)  $(a - 20b)(4a^2 - 14ab + 13b^2)$

$4a^3 - 94a^2b + 293ab^2 - 260b^3$

263)  $(18x - 3y)(20x^2 + 9xy + 8y^2)$

$360x^3 + 102x^2y + 117xy^2 - 24y^3$

264)  $(7a + 20b)(11a^2 - 3ab + 9b^2)$

$77a^3 + 199a^2b + 3ab^2 + 180b^3$

265)  $(3x + 8y)(x^2 - 20xy + 2y^2)$

$3x^3 - 52x^2y - 154xy^2 + 16y^3$

266)  $(4m + 3n)(19m^2 - mn + 17n^2)$

$76m^3 + 53m^2n + 65mn^2 + 51n^3$

267)  $(5m - 4n)(19m^2 + 13mn - 8n^2)$

$95m^3 - 11m^2n - 92mn^2 + 32n^3$

268)  $(17x + 17y)(8x^2 + 18xy - 19y^2)$

$136x^3 + 442x^2y - 17xy^2 - 323y^3$

269)  $(2x - 16y)(8x^2 - 17xy + 4y^2)$

$16x^3 - 162x^2y + 280xy^2 - 64y^3$

270)  $(19x + 4y)(18x^2 - 3xy - 15y^2)$

$342x^3 + 15x^2y - 297xy^2 - 60y^3$

271)  $(8u - 8v)(16u^2 - 20uv + 17v^2)$

$128u^3 - 288u^2v + 296uv^2 - 136v^3$

272)  $(4x + 12y)(5x^2 + 4xy + 8y^2)$

$20x^3 + 76x^2y + 80xy^2 + 96y^3$

273)  $(17u + 11v)(12u^2 - 2uv + 6v^2)$

$204u^3 + 98u^2v + 80uv^2 + 66v^3$

274)  $(10x - 20y)(13x^2 + xy - 11y^2)$

$130x^3 - 250x^2y - 130xy^2 + 220y^3$

275)  $(6a - 5b)(19a^2 - 20ab - b^2)$

$114a^3 - 215a^2b + 94ab^2 + 5b^3$

276)  $(3x - 12y)(12x^2 - 2xy + 12y^2)$

$36x^3 - 150x^2y + 60xy^2 - 144y^3$



$$277) (12a + 8b)(2a^2 - 20ab + 2b^2)$$
$$24a^3 - 224a^2b - 136ab^2 + 16b^3$$

$$279) (5a + 17b)(9a^2 + 19ab + 16b^2)$$
$$45a^3 + 248a^2b + 403ab^2 + 272b^3$$

$$281) (11m - 16n)(9m^2 - 16mn - 3n^2)$$
$$99m^3 - 320m^2n + 223mn^2 + 48n^3$$

$$283) (17m - 8n)(16m^2 - 19mn + 20n^2)$$
$$272m^3 - 451m^2n + 492mn^2 - 160n^3$$

$$285) (9x + y)(16x^2 - 13xy + y^2)$$
$$144x^3 - 101x^2y - 4xy^2 + y^3$$

$$287) (15x + 9y)(3x^2 - 16xy + 15y^2)$$
$$45x^3 - 213x^2y + 81xy^2 + 135y^3$$

$$289) (3x + 8y)(8x^2 - 4xy - 19y^2)$$
$$24x^3 + 52x^2y - 89xy^2 - 152y^3$$

$$291) (14x - 15y)(10x^2 - 12xy + 19y^2)$$
$$140x^3 - 318x^2y + 446xy^2 - 285y^3$$

$$293) (20x - 7y)(18x^2 - 15xy - y^2)$$
$$360x^3 - 426x^2y + 85xy^2 + 7y^3$$

$$295) (4x + y)(17x^2 - 18xy + 14y^2)$$
$$68x^3 - 55x^2y + 38xy^2 + 14y^3$$

$$297) (18x + y)(4x^2 - 12xy - 5y^2)$$
$$72x^3 - 212x^2y - 102xy^2 - 5y^3$$

$$299) (3x + 9y)(3x^2 - 15xy + 17y^2)$$
$$9x^3 - 18x^2y - 84xy^2 + 153y^3$$

$$301) (39u + 17v)(23u^2 + 6uv - 2v^2)$$
$$897u^3 + 625u^2v + 24uv^2 - 34v^3$$

$$303) (14u + 49v)(5u^2 - 13uv - 27v^2)$$
$$70u^3 + 63u^2v - 1015uv^2 - 1323v^3$$

$$278) (9x - 4y)(20x^2 + 4xy - 7y^2)$$
$$180x^3 - 44x^2y - 79xy^2 + 28y^3$$

$$280) (14x + 5y)(20x^2 + xy + 7y^2)$$
$$280x^3 + 114x^2y + 103xy^2 + 35y^3$$

$$282) (7x + 13y)(6x^2 + 7xy - 12y^2)$$
$$42x^3 + 127x^2y + 7xy^2 - 156y^3$$

$$284) (13x - 20y)(6x^2 + 4xy + 10y^2)$$
$$78x^3 - 68x^2y + 50xy^2 - 200y^3$$

$$286) (19u - 20v)(13u^2 + 2uv - 8v^2)$$
$$247u^3 - 222u^2v - 192uv^2 + 160v^3$$

$$288) (12u - 12v)(13u^2 + 8uv + 5v^2)$$
$$156u^3 - 60u^2v - 36uv^2 - 60v^3$$

$$290) (17a - 4b)(12a^2 - 13ab + 10b^2)$$
$$204a^3 - 269a^2b + 222ab^2 - 40b^3$$

$$292) (2a + 5b)(20a^2 + 2ab + 9b^2)$$
$$40a^3 + 104a^2b + 28ab^2 + 45b^3$$

$$294) (16a + 13b)(7a^2 + 8ab - 9b^2)$$
$$112a^3 + 219a^2b - 40ab^2 - 117b^3$$

$$296) (m - 19n)(7m^2 + 5mn + 4n^2)$$
$$7m^3 - 128m^2n - 91mn^2 - 76n^3$$

$$298) (7m - 11n)(14m^2 + 3mn - 14n^2)$$
$$98m^3 - 133m^2n - 131mn^2 + 154n^3$$

$$300) (20x - 3y)(14x^2 + 9xy + 8y^2)$$
$$280x^3 + 138x^2y + 133xy^2 - 24y^3$$

$$302) (26x + 5y)(39x^2 - 25xy - 14y^2)$$
$$1014x^3 - 455x^2y - 489xy^2 - 70y^3$$

$$304) (26x + 36y)(21x^2 + 18xy + 21y^2)$$
$$546x^3 + 1224x^2y + 1194xy^2 + 756y^3$$

$$305) (14a - 21b)(12a^2 - 31ab + 6b^2)$$

$$168a^3 - 686a^2b + 735ab^2 - 126b^3$$

$$307) (13a + 10b)(45a^2 - 6ab - 19b^2)$$

$$585a^3 + 372a^2b - 307ab^2 - 190b^3$$

$$309) (x - 46y)(36x^2 - 38xy - 31y^2)$$

$$36x^3 - 1694x^2y + 1717xy^2 + 1426y^3$$

$$311) (39m - 28n)(34m^2 - 44mn + 33n^2)$$

$$1326m^3 - 2668m^2n + 2519mn^2 - 924n^3$$

$$313) (39m + 3n)(42m^2 - 19mn - 35n^2)$$

$$1638m^3 - 615m^2n - 1422mn^2 - 105n^3$$

$$315) (14x + 35y)(23x^2 - 38xy + 41y^2)$$

$$322x^3 + 273x^2y - 756xy^2 + 1435y^3$$

$$317) (u + 9v)(47u^2 - 44uv + 4v^2)$$

$$47u^3 + 379u^2v - 392uv^2 + 36v^3$$

$$319) (a + 41b)(4a^2 - 19ab + 37b^2)$$

$$4a^3 + 145a^2b - 742ab^2 + 1517b^3$$

$$321) (13x - 48y)(13x^2 - 31xy - 8y^2)$$

$$169x^3 - 1027x^2y + 1384xy^2 + 384y^3$$

$$323) (39x + 46y)(10x^2 - 44xy - 25y^2)$$

$$390x^3 - 1256x^2y - 2999xy^2 - 1150y^3$$

$$325) (26m + 34n)(26m^2 - 31mn - 37n^2)$$

$$676m^3 + 78m^2n - 2016mn^2 - 1258n^3$$

$$327) (13x - 23y)(17x^2 + 38xy - 49y^2)$$

$$221x^3 + 103x^2y - 1511xy^2 + 1127y^3$$

$$329) (13x + 8y)(50x^2 - 38xy - 17y^2)$$

$$650x^3 - 94x^2y - 525xy^2 - 136y^3$$

$$331) (4x + 9y)(22x^2 + 48xy - 24y^2)$$

$$88x^3 + 390x^2y + 336xy^2 - 216y^3$$

$$306) (x - 34y)(29x^2 - 19xy - 6y^2)$$

$$29x^3 - 1005x^2y + 640xy^2 + 204y^3$$

$$308) (39a + 42b)(2a^2 - 25ab - 43b^2)$$

$$78a^3 - 891a^2b - 2727ab^2 - 1806b^3$$

$$310) (x - 15y)(18x^2 - 13xy + 45y^2)$$

$$18x^3 - 283x^2y + 240xy^2 - 675y^3$$

$$312) (26x + 16y)(26x^2 - 31xy - 23y^2)$$

$$676x^3 - 390x^2y - 1094xy^2 - 368y^3$$

$$314) (26x + 48y)(7x^2 - 50xy - 48y^2)$$

$$182x^3 - 964x^2y - 3648xy^2 - 2304y^3$$

$$316) (13x - 35y)(31x^2 + 44xy + 17y^2)$$

$$403x^3 - 513x^2y - 1319xy^2 - 595y^3$$

$$318) (26u - 22v)(15u^2 - 25uv + 29v^2)$$

$$390u^3 - 980u^2v + 1304uv^2 - 638v^3$$

$$320) (39x - 16y)(20x^2 - 50xy + 25y^2)$$

$$780x^3 - 2270x^2y + 1775xy^2 - 400y^3$$

$$322) (18a - 37b)(25a^2 + 12ab + 3b^2)$$

$$450a^3 - 709a^2b - 390ab^2 - 111b^3$$

$$324) (26a + 2b)(44a^2 + 44ab - 12b^2)$$

$$1144a^3 + 1232a^2b - 224ab^2 - 24b^3$$

$$326) (39x + 15y)(28x^2 - 25xy - 15y^2)$$

$$1092x^3 - 555x^2y - 960xy^2 - 225y^3$$

$$328) (m - 36n)(34m^2 - 50mn + 40n^2)$$

$$34m^3 - 1274m^2n + 1840mn^2 - 1440n^3$$

$$330) (x - 49y)(15x^2 + 32xy - 29y^2)$$

$$15x^3 - 703x^2y - 1597xy^2 + 1421y^3$$

$$332) (39u - 30v)(39u^2 + 26uv + 35v^2)$$

$$1521u^3 - 156u^2v + 585uv^2 - 1050v^3$$

333)  $(39u + 40v)(7u^2 + 44uv - 41v^2)$

$273u^3 + 1996u^2v + 161uv^2 - 1640v^3$

334)  $(26x + 14y)(4x^2 + 38xy + 23y^2)$

$104x^3 + 1044x^2y + 1130xy^2 + 322y^3$

335)  $(14a + 33b)(28a^2 + 32ab + 43b^2)$

$392a^3 + 1372a^2b + 1658ab^2 + 1419b^3$

336)  $(26x + 45y)(12x^2 - 38xy - 2y^2)$

$312x^3 - 448x^2y - 1762xy^2 - 90y^3$

337)  $(39a + b)(47a^2 - 50ab + 11b^2)$

$1833a^3 - 1903a^2b + 379ab^2 + 11b^3$

338)  $(26x - 24y)(20x^2 + 45xy + 31y^2)$

$520x^3 + 690x^2y - 274xy^2 - 744y^3$

339)  $(x + 7y)(x^2 + 26xy + 6y^2)$

$x^3 + 33x^2y + 188xy^2 + 42y^3$

340)  $(13m - 6n)(18m^2 + 38mn - 6n^2)$

$234m^3 + 386m^2n - 306mn^2 + 36n^3$

341)  $(13m - 37n)(36m^2 - 44mn + 19n^2)$

$468m^3 - 1904m^2n + 1875mn^2 - 703n^3$

342)  $(39m - 18n)(25m^2 + 19mn - 30n^2)$

$975m^3 + 291m^2n - 1512mn^2 + 540n^3$

343)  $(x + 38y)(9x^2 - 50xy - 18y^2)$

$9x^3 + 292x^2y - 1918xy^2 - 684y^3$

344)  $(18x + 18y)(18x^2 - 43xy + 12y^2)$

$324x^3 - 450x^2y - 558xy^2 + 216y^3$

345)  $(39x + 13y)(7x^2 + 45xy + 2y^2)$

$273x^3 + 1846x^2y + 663xy^2 + 26y^3$

346)  $(26u + 24v)(17u^2 - 10uv - 25v^2)$

$442u^3 + 148u^2v - 890uv^2 - 600v^3$

347)  $(26u + 31v)(31u^2 + 38uv - 35v^2)$

$806u^3 + 1949u^2v + 268uv^2 - 1085v^3$

348)  $(13x - 25y)(47x^2 + 7xy - 47y^2)$

$611x^3 - 1084x^2y - 786xy^2 + 1175y^3$

349)  $(39x + 44y)(15x^2 + 26xy - 23y^2)$

$585x^3 + 1674x^2y + 247xy^2 - 1012y^3$

350)  $(26a - 38b)(38a^2 + 19ab + 42b^2)$

$988a^3 - 950a^2b + 370ab^2 - 1596b^3$

351)  $(13x + 6y)(4x^2 + 32xy + 29y^2)$

$52x^3 + 440x^2y + 569xy^2 + 174y^3$

352)  $(a - 7b)(20a^2 + ab + 17b^2)$

$20a^3 - 139a^2b + 10ab^2 - 119b^3$

353)  $(13x + 37y)(36x^2 + 13xy + 5y^2)$

$468x^3 + 1501x^2y + 546xy^2 + 185y^3$

354)  $(3m - 37n)(15m^2 + 50mn - 15n^2)$

$45m^3 - 405m^2n - 1895mn^2 + 555n^3$

355)  $(6m + 26n)(14m^2 + 25mn + 48n^2)$

$84m^3 + 514m^2n + 938mn^2 + 1248n^3$

356)  $(39x - 32y)(44x^2 + 38xy + 37y^2)$

$1716x^3 + 74x^2y + 227xy^2 - 1184y^3$

357)  $(39x - y)(x^2 + 19xy + 13y^2)$

$39x^3 + 740x^2y + 488xy^2 - 13y^3$

358)  $(26m + 43n)(17m^2 + 32mn + n^2)$

$442m^3 + 1563m^2n + 1402mn^2 + 43n^3$

359)  $(38x + 30y)(33x^2 + xy - 12y^2)$

$1254x^3 + 1028x^2y - 426xy^2 - 360y^3$

360)  $(26x - 27y)(50x^2 + 13xy - 24y^2)$

$1300x^3 - 1012x^2y - 975xy^2 + 648y^3$

$$361) (13u - 39v)(41u^2 + 26uv - 36v^2) \\ 533u^3 - 1261u^2v - 1482uv^2 + 1404v^3$$

$$363) (15x - 35y)(11x^2 - 16xy - 43y^2) \\ 165x^3 - 625x^2y - 85xy^2 + 1505y^3$$

$$365) (13u - 8v)(23u^2 + 7uv - 4v^2) \\ 299u^3 - 93u^2v - 108uv^2 + 32v^3$$

$$367) (39a + 11b)(12a^2 + 13ab + 48b^2) \\ 468a^3 + 639a^2b + 2015ab^2 + 528b^3$$

$$369) (39m + 42n)(19m^2 - 6mn + 24n^2) \\ 741m^3 + 564m^2n + 684mn^2 + 1008n^3$$

$$371) (38m - 28n)(m^2 - 25mn - 45n^2) \\ 38m^3 - 978m^2n - 1010mn^2 + 1260n^3$$

$$373) (26x - 40y)(43x^2 - 12xy + 44y^2) \\ 1118x^3 - 2032x^2y + 1624xy^2 - 1760y^3$$

$$375) (13x + 35y)(41x^2 - 18xy + 7y^2) \\ 533x^3 + 1201x^2y - 539xy^2 + 245y^3$$

$$377) (13x - 35y)(49x^2 + 7xy - 18y^2) \\ 637x^3 - 1624x^2y - 479xy^2 + 630y^3$$

$$379) (39x - 3y)(31x^2 - 12xy + 15y^2) \\ 1209x^3 - 561x^2y + 621xy^2 - 45y^3$$

$$381) (38x + 28y)(38x^2 - 31xy - 10y^2) \\ 1444x^3 - 114x^2y - 1248xy^2 - 280y^3$$

$$383) (26m + 3n)(11m^2 - 37mn - 47n^2) \\ 286m^3 - 929m^2n - 1333mn^2 - 141n^3$$

$$385) (13x - 10y)(27x^2 - 25xy + 42y^2) \\ 351x^3 - 595x^2y + 796xy^2 - 420y^3$$

$$387) (13x - 23y)(35x^2 - 43xy - 26y^2) \\ 455x^3 - 1364x^2y + 651xy^2 + 598y^3$$

$$362) (26x + 5y)(6x^2 - 6xy + 8y^2) \\ 156x^3 - 126x^2y + 178xy^2 + 40y^3$$

$$364) (13a - 21b)(30a^2 - 12ab - 28b^2) \\ 390a^3 - 786a^2b - 112ab^2 + 588b^3$$

$$366) (18x - 29y)(11x^2 - 41xy + 21y^2) \\ 198x^3 - 1057x^2y + 1567xy^2 - 609y^3$$

$$368) (20x + 35y)(10x^2 + 36xy - 16y^2) \\ 200x^3 + 1070x^2y + 940xy^2 - 560y^3$$

$$370) (26x + 29y)(36x^2 + 7xy - 33y^2) \\ 936x^3 + 1226x^2y - 655xy^2 - 957y^3$$

$$372) (13m + 4n)(9m^2 + mn + 31n^2) \\ 117m^3 + 49m^2n + 407mn^2 + 124n^3$$

$$374) (26x - 9y)(25x^2 + 13xy + 19y^2) \\ 650x^3 + 113x^2y + 377xy^2 - 171y^3$$

$$376) (3u + 18v)(7u^2 - 5uv - 7v^2) \\ 21u^3 + 111u^2v - 111uv^2 - 126v^3$$

$$378) (6u - 20v)(6u^2 - 30uv - 44v^2) \\ 36u^3 - 300u^2v + 336uv^2 + 880v^3$$

$$380) (8a - 13b)(32a^2 + 3ab + 20b^2) \\ 256a^3 - 392a^2b + 121ab^2 - 260b^3$$

$$382) (26a - 29b)(4a^2 - 18ab - 22b^2) \\ 104a^3 - 584a^2b - 50ab^2 + 638b^3$$

$$384) (38x - 42y)(20x^2 - 6xy - 34y^2) \\ 760x^3 - 1068x^2y - 1040xy^2 + 1428y^3$$

$$386) (25m + 34n)(44m^2 - 12mn + 30n^2) \\ 1100m^3 + 1196m^2n + 342mn^2 + 1020n^3$$

$$388) (17m + 26n)(3m^2 - 39mn + 30n^2) \\ 51m^3 - 585m^2n - 504mn^2 + 780n^3$$

389)  $(13x + 8y)(17x^2 - 18xy + 50y^2)$

$221x^3 - 98x^2y + 506xy^2 + 400y^3$

390)  $(20x - 11y)(28x^2 + 38xy - 7y^2)$

$560x^3 + 452x^2y - 558xy^2 + 77y^3$

391)  $(26x + 27y)(41x^2 - 24xy + 13y^2)$

$1066x^3 + 483x^2y - 310xy^2 + 351y^3$

392)  $(38u - 30v)(6u^2 - 12uv + v^2)$

$228u^3 - 636u^2v + 398uv^2 - 30v^3$

393)  $(38u + 40v)(24u^2 - 37uv + 26v^2)$

$912u^3 - 446u^2v - 492uv^2 + 1040v^3$

394)  $(26x - 43y)(22x^2 - 43xy - 11y^2)$

$572x^3 - 2064x^2y + 1563xy^2 + 473y^3$

395)  $(25x - 11y)(30x^2 - 18xy + 21y^2)$

$750x^3 - 780x^2y + 723xy^2 - 231y^3$

396)  $(13a + 33b)(46a^2 - 50ab + 9b^2)$

$598a^3 + 868a^2b - 1533ab^2 + 297b^3$

397)  $(13a + b)(14a^2 - 31ab - 23b^2)$

$182a^3 - 389a^2b - 330ab^2 - 23b^3$

398)  $(3x + 29y)(33x^2 + 2xy - 27y^2)$

$99x^3 + 963x^2y - 23xy^2 - 783y^3$

399)  $(13m - 37n)(3m^2 - 24mn - 16n^2)$

$39m^3 - 423m^2n + 680mn^2 + 592n^3$

400)  $(5x + 35y)(50x^2 - 28xy - 35y^2)$

$250x^3 + 1610x^2y - 1155xy^2 - 1225y^3$

401)  $(89m - 41n)(66m^2 - 19mn - 74n^2)$

$5874m^3 - 4397m^2n - 5807mn^2 + 3034n^3$

402)  $(87x - 71y)(92x^2 + 44xy + 34y^2)$

$8004x^3 - 2704x^2y - 166xy^2 - 2414y^3$

403)  $(28x - 96y)(73x^2 - 98xy - 60y^2)$

$2044x^3 - 9752x^2y + 7728xy^2 + 5760y^3$

404)  $(69x + 50y)(36x^2 + 29xy - 50y^2)$

$2484x^3 + 3801x^2y - 2000xy^2 - 2500y^3$

405)  $(11u + 20v)(61u^2 + 88uv + 58v^2)$

$671u^3 + 2188u^2v + 2398uv^2 + 1160v^3$

406)  $(71x + 75y)(54x^2 - 35xy + 43y^2)$

$3834x^3 + 1565x^2y + 428xy^2 + 3225y^3$

407)  $(51u - 34v)(24u^2 + 14uv + 72v^2)$

$1224u^3 - 102u^2v + 3196uv^2 - 2448v^3$

408)  $(94x - 64y)(5x^2 + 77xy - 21y^2)$

$470x^3 + 6918x^2y - 6902xy^2 + 1344y^3$

409)  $(53x - 4y)(42x^2 - 50xy - 36y^2)$

$2226x^3 - 2818x^2y - 1708xy^2 + 144y^3$

410)  $(35a - 89b)(30a^2 - 65ab + 86b^2)$

$1050a^3 - 4945a^2b + 8795ab^2 - 7654b^3$

411)  $(34x + 82y)(12x^2 - 2xy - 7y^2)$

$408x^3 + 916x^2y - 402xy^2 - 574y^3$

412)  $(76a + 57b)(94a^2 + 62ab + 96b^2)$

$7144a^3 + 10070a^2b + 10830ab^2 + 5472b^3$

413)  $(17x + 28y)(75x^2 - 80xy + 3y^2)$

$1275x^3 + 740x^2y - 2189xy^2 + 84y^3$

414)  $(16m + 3n)(95m^2 - 91mn - 45n^2)$

$1520m^3 - 1171m^2n - 993mn^2 - 135n^3$

415)  $(99x - 82y)(44x^2 - 32xy + 32y^2)$

$4356x^3 - 6776x^2y + 5792xy^2 - 2624y^3$

416)  $(5m - 94n)(76m^2 - 76mn - 57n^2)$

$380m^3 - 7524m^2n + 6859mn^2 + 5358n^3$

417)  $(58x - 27y)(82x^2 + 47xy + 17y^2)$

$4756x^3 + 512x^2y - 283xy^2 - 459y^3$

419)  $(23u + 10v)(58u^2 + 16uv + 55v^2)$

$1334u^3 + 948u^2v + 1425uv^2 + 550v^3$

421)  $(65x - 20y)(39x^2 + 75xy - 38y^2)$

$2535x^3 + 4095x^2y - 3970xy^2 + 760y^3$

423)  $(5x - 75y)(2x^2 + xy - 23y^2)$

$10x^3 - 145x^2y - 190xy^2 + 1725y^3$

425)  $(47a - 99b)(27a^2 + 59ab + 84b^2)$

$1269a^3 + 100a^2b - 1893ab^2 - 8316b^3$

427)  $(88a + 47b)(91a^2 - 14ab + 99b^2)$

$8008a^3 + 3045a^2b + 8054ab^2 + 4653b^3$

429)  $(29x + 17y)(72x^2 + 49xy + 6y^2)$

$2088x^3 + 2645x^2y + 1007xy^2 + 102y^3$

431)  $(12m - 67n)(60m^2 + 34mn - 78n^2)$

$720m^3 - 3612m^2n - 3214mn^2 + 5226n^3$

433)  $(10x - 92y)(41x^2 + 92xy + 30y^2)$

$410x^3 - 2852x^2y - 8164xy^2 - 2760y^3$

435)  $(93x + 24y)(29x^2 + 77xy - 49y^2)$

$2697x^3 + 7857x^2y - 2709xy^2 - 1176y^3$

437)  $(77x - 30y)(36x^2 + 3xy - 40y^2)$

$2772x^3 - 849x^2y - 3170xy^2 + 1200y^3$

439)  $(59a + 91b)(24a^2 - 12ab + 82b^2)$

$1416a^3 + 1476a^2b + 3746ab^2 + 7462b^3$

441)  $(58x + 61y)(5x^2 + 47xy - 11y^2)$

$290x^3 + 3031x^2y + 2229xy^2 - 671y^3$

443)  $(42x + 7y)(69x^2 - 27xy + 4y^2)$

$2898x^3 - 651x^2y - 21xy^2 + 28y^3$

418)  $(40x + 94y)(70x^2 + 31xy - 62y^2)$

$2800x^3 + 7820x^2y + 434xy^2 - 5828y^3$

420)  $(81x + 35y)(32x^2 - 47xy - 47y^2)$

$2592x^3 - 2687x^2y - 5452xy^2 - 1645y^3$

422)  $(83x + 65y)(51x^2 + 90xy + 46y^2)$

$4233x^3 + 10785x^2y + 9668xy^2 + 2990y^3$

424)  $(63u - 45v)(20u^2 - 63uv + 70v^2)$

$1260u^3 - 4869u^2v + 7245uv^2 - 3150v^3$

426)  $(46x + 72y)(8x^2 - 78xy - 9y^2)$

$368x^3 - 3012x^2y - 6030xy^2 - 648y^3$

428)  $(28m - 8n)(97m^2 - 93mn - 93n^2)$

$2716m^3 - 3380m^2n - 1860mn^2 + 744n^3$

430)  $(70x - 37y)(79x^2 - 30xy + 15y^2)$

$5530x^3 - 5023x^2y + 2160xy^2 - 555y^3$

432)  $(53x + 79y)(67x^2 - 45xy - 64y^2)$

$3551x^3 + 2908x^2y - 6947xy^2 - 5056y^3$

434)  $(95x + 54y)(48x^2 + 19xy + 44y^2)$

$4560x^3 + 4397x^2y + 5206xy^2 + 2376y^3$

436)  $(35u - 92v)(64u^2 + 58uv + 78v^2)$

$2240u^3 - 3858u^2v - 2606uv^2 - 7176v^3$

438)  $(76u - 55v)(17u^2 + 62uv + 68v^2)$

$1292u^3 + 3777u^2v + 1758uv^2 - 3740v^3$

440)  $(17x - 85y)(99x^2 - 75xy - 25y^2)$

$1683x^3 - 9690x^2y + 5950xy^2 + 2125y^3$

442)  $(100a + 32b)(87a^2 - 91ab + 97b^2)$

$8700a^3 - 6316a^2b + 6788ab^2 + 3104b^3$

444)  $(40m - 23n)(94m^2 + 36mn - 90n^2)$

$3760m^3 - 722m^2n - 4428mn^2 + 2070n^3$

- 445)  $(82x - 48y)(75x^2 + 95xy + 18y^2)$   
 $6150x^3 + 4190x^2y - 3084xy^2 - 864y^3$
- 447)  $(22x + 98y)(38x^2 + 21xy + 27y^2)$   
 $836x^3 + 4186x^2y + 2652xy^2 + 2646y^3$
- 449)  $(6x + 44y)(45x^2 - 58xy + 42y^2)$   
 $270x^3 + 1632x^2y - 2300xy^2 + 1848y^3$
- 451)  $(47u - 11v)(51u^2 + 64uv + 56v^2)$   
 $2397u^3 + 2447u^2v + 1928uv^2 - 616v^3$
- 453)  $(31u - 71v)(14u^2 - 9uv + 71v^2)$   
 $434u^3 - 1273u^2v + 2840uv^2 - 5041v^3$
- 455)  $(71a + 76b)(20a^2 - 88ab + 80b^2)$   
 $1420a^3 - 4728a^2b - 1008ab^2 + 6080b^3$
- 457)  $(11a + 21b)(84a^2 + 34ab + 95b^2)$   
 $924a^3 + 2138a^2b + 1759ab^2 + 1995b^3$
- 459)  $(96m - 34n)(91m^2 - 40mn - 92n^2)$   
 $8736m^3 - 6934m^2n - 7472mn^2 + 3128n^3$
- 461)  $(94x - 58y)(72x^2 + 19xy + 16y^2)$   
 $6768x^3 - 2390x^2y + 402xy^2 - 928y^3$
- 463)  $(77x + 58y)(60x^2 + 8xy - 68y^2)$   
 $4620x^3 + 4096x^2y - 4772xy^2 - 3944y^3$
- 465)  $(61x + 4y)(23x^2 - 71xy - 53y^2)$   
 $1403x^3 - 4239x^2y - 3517xy^2 - 212y^3$
- 467)  $(38x + 46y)(14x^2 - 39xy + 69y^2)$   
 $532x^3 - 838x^2y + 828xy^2 + 3174y^3$
- 469)  $(41x + 95y)(93x^2 - 22xy - 24y^2)$   
 $3813x^3 + 7933x^2y - 3074xy^2 - 2280y^3$
- 471)  $(25x + 41y)(99x^2 + 100xy - 15y^2)$   
 $2475x^3 + 6559x^2y + 3725xy^2 - 615y^3$
- 446)  $(24m - 78n)(57m^2 - 42mn - 80n^2)$   
 $1368m^3 - 5454m^2n + 1356mn^2 + 6240n^3$
- 448)  $(65x + 69y)(63x^2 + 80xy - 66y^2)$   
 $4095x^3 + 9547x^2y + 1230xy^2 - 4554y^3$
- 450)  $(4x + 14y)(26x^2 + 6xy - 51y^2)$   
 $104x^3 + 388x^2y - 120xy^2 - 714y^3$
- 452)  $(89x - 41y)(32x^2 - 73xy - 37y^2)$   
 $2848x^3 - 7809x^2y - 300xy^2 + 1517y^3$
- 454)  $(29x - 95y)(96x^2 + 49xy - 27y^2)$   
 $2784x^3 - 7699x^2y - 5438xy^2 + 2565y^3$
- 456)  $(13x + 51y)(2x^2 - 25xy - 13y^2)$   
 $26x^3 - 223x^2y - 1444xy^2 - 663y^3$
- 458)  $(54x - 4y)(65x^2 + 97xy + y^2)$   
 $3510x^3 + 4978x^2y - 334xy^2 - 4y^3$
- 460)  $(36m - 88n)(53m^2 + 82mn - 77n^2)$   
 $1908m^3 - 1712m^2n - 9988mn^2 + 6776n^3$
- 462)  $(78x + 88y)(35x^2 - 55xy + 25y^2)$   
 $2730x^3 - 1210x^2y - 2890xy^2 + 2200y^3$
- 464)  $(18x + 28y)(41x^2 + 67xy + 40y^2)$   
 $738x^3 + 2354x^2y + 2596xy^2 + 1120y^3$
- 466)  $(59u - 26v)(48u^2 - 7uv + 54v^2)$   
 $2832u^3 - 1661u^2v + 3368uv^2 - 1404v^3$
- 468)  $(43u - 81v)(10u^2 - 86uv + 69v^2)$   
 $430u^3 - 4508u^2v + 9933uv^2 - 5589v^3$
- 470)  $(84a + 65b)(17a^2 + 36ab + 83b^2)$   
 $1428a^3 + 4129a^2b + 9312ab^2 + 5395b^3$
- 472)  $(23a + 11b)(81a^2 - 38ab + 93b^2)$   
 $1863a^3 + 17a^2b + 1721ab^2 + 1023b^3$

473)  $(66x - 14y)(62x^2 + 21xy - y^2)$

$4092x^3 + 518x^2y - 360xy^2 + 14y^3$

474)  $(7m - 44n)(87m^2 + 85mn - 94n^2)$

$609m^3 - 3233m^2n - 4398mn^2 + 4136n^3$

475)  $(6x - 74y)(69x^2 - 53xy + 14y^2)$

$414x^3 - 5424x^2y + 4006xy^2 - 1036y^3$

476)  $(48m - 99n)(50m^2 + 6mn - 79n^2)$

$2400m^3 - 4662m^2n - 4386mn^2 + 7821n^3$

477)  $(90x + 73y)(31x^2 + 69xy + 28y^2)$

$2790x^3 + 8473x^2y + 7557xy^2 + 2044y^3$

478)  $(89x + 48y)(57x^2 - 68xy - 65y^2)$

$5073x^3 - 3316x^2y - 9049xy^2 - 3120y^3$

479)  $(30x + 18y)(38x^2 - 10xy + 38y^2)$

$1140x^3 + 384x^2y + 960xy^2 + 684y^3$

480)  $(73x - 7y)(19x^2 + 54xy - 55y^2)$

$1387x^3 + 3809x^2y - 4393xy^2 + 385y^3$

481)  $(71u - 37v)(u^2 - 83uv + 52v^2)$

$71u^3 - 5930u^2v + 6763uv^2 - 1924v^3$

482)  $(12x - 62y)(26x^2 - 20xy - 41y^2)$

$312x^3 - 1852x^2y + 748xy^2 + 2542y^3$

483)  $(55u - 91v)(7u^2 + 39uv + 67v^2)$

$385u^3 + 1508u^2v + 136uv^2 - 6097v^3$

484)  $(53x + 85y)(90x^2 - 99xy - 27y^2)$

$4770x^3 + 2403x^2y - 9846xy^2 - 2295y^3$

485)  $(96a + 55b)(14a^2 - 35ab + 81b^2)$

$1344a^3 - 2590a^2b + 5851ab^2 + 4455b^3$

486)  $(37x + 25y)(96x^2 + 24xy - 12y^2)$

$3552x^3 + 3288x^2y + 156xy^2 - 300y^3$

487)  $(35a + 43b)(a^2 + 91ab - 2b^2)$

$35a^3 + 3228a^2b + 3843ab^2 - 86b^3$

488)  $(78x - 30y)(59x^2 - 50xy - 3y^2)$

$4602x^3 - 5670x^2y + 1266xy^2 + 90y^3$

489)  $(19m - 54n)(84m^2 + 8mn - 96n^2)$

$1596m^3 - 4384m^2n - 2256mn^2 + 5184n^3$

490)  $(18x - 84y)(65x^2 + 72xy + 12y^2)$

$1170x^3 - 4164x^2y - 5832xy^2 - 1008y^3$

491)  $(60m + 92n)(47m^2 - 66mn - 81n^2)$

$2820m^3 + 364m^2n - 10932mn^2 - 7452n^3$

492)  $(x + 62y)(28x^2 - 7xy + 26y^2)$

$28x^3 + 1729x^2y - 408xy^2 + 1612y^3$

493)  $(98x + 85y)(90x^2 - 67xy - 25y^2)$

$8820x^3 + 1084x^2y - 8145xy^2 - 2125y^3$

494)  $(42x + 7y)(35x^2 - 81xy + 41y^2)$

$1470x^3 - 3157x^2y + 1155xy^2 + 287y^3$

495)  $(85x - 17y)(16x^2 - 22xy - 52y^2)$

$1360x^3 - 2142x^2y - 4046xy^2 + 884y^3$

496)  $(83u - 47v)(98u^2 + 41uv + 50v^2)$

$8134u^3 - 1203u^2v + 2223uv^2 - 2350v^3$

497)  $(25x - 77y)(23x^2 - 96xy - 43y^2)$

$575x^3 - 4171x^2y + 6317xy^2 + 3311y^3$

498)  $(67u + 99v)(4u^2 - 33uv + 65v^2)$

$268u^3 - 1815u^2v + 1088uv^2 + 6435v^3$

499)  $(65x + 69y)(86x^2 + 26xy - 29y^2)$

$5590x^3 + 7624x^2y - 91xy^2 - 2001y^3$

500)  $(7a + 45b)(11a^2 + 90ab + 79b^2)$

$77a^3 + 1125a^2b + 4603ab^2 + 3555b^3$



$$501) (49x + 15y)(93x^2 - 48xy - 14y^2)$$

$$4557x^3 - 957x^2y - 1406xy^2 - 210y^3$$

$$503) (90x - 40y)(55x^2 + 74xy - 60y^2)$$

$$4950x^3 + 4460x^2y - 8360xy^2 + 2400y^3$$

$$505) (31m - 65n)(81m^2 - 63mn - 98n^2)$$

$$2511m^3 - 7218m^2n + 1057mn^2 + 6370n^3$$

$$507) (54x - 3y)(31x^2 + 44xy + 39y^2)$$

$$1674x^3 + 2283x^2y + 1974xy^2 - 117y^3$$

$$509) (14x + 52y)(25x^2 - 78xy + 24y^2)$$

$$350x^3 + 208x^2y - 3720xy^2 + 1248y^3$$

$$511) (37x - 87y)(19x^2 + 28xy - 45y^2)$$

$$703x^3 - 617x^2y - 4101xy^2 + 3915y^3$$

$$513) (95u - 58v)(95u^2 - 35uv + 53v^2)$$

$$9025u^3 - 8835u^2v + 7065uv^2 - 3074v^3$$

$$515) (19a + 34b)(7a^2 + 13ab + 77b^2)$$

$$133a^3 + 485a^2b + 1905ab^2 + 2618b^3$$

$$517) (3a - 21b)(71a^2 - 61ab + 92b^2)$$

$$213a^3 - 1674a^2b + 1557ab^2 - 1932b^3$$

$$519) (86x + 96y)(59x^2 - 76xy + 13y^2)$$

$$5074x^3 - 872x^2y - 6178xy^2 + 1248y^3$$

$$521) (43m - 80n)(77m^2 + 61mn - 95n^2)$$

$$3311m^3 - 3537m^2n - 8965mn^2 + 7600n^3$$

$$523) (8x - 43y)(9x^2 + 31xy - 57y^2)$$

$$72x^3 - 139x^2y - 1789xy^2 + 2451y^3$$

$$525) (68x + 11y)(47x^2 - 91xy - 71y^2)$$

$$3196x^3 - 5671x^2y - 5829xy^2 - 781y^3$$

$$527) (91u + 78v)(98u^2 + 16uv + 66v^2)$$

$$8918u^3 + 9100u^2v + 7254uv^2 + 5148v^3$$

$$502) (48a - 10b)(74a^2 + 11ab + 94b^2)$$

$$3552a^3 - 212a^2b + 4402ab^2 - 940b^3$$

$$504) (30x - 95y)(62x^2 - 5xy + 10y^2)$$

$$1860x^3 - 6040x^2y + 775xy^2 - 950y^3$$

$$506) (72m + 82n)(43m^2 + 59mn - 83n^2)$$

$$3096m^3 + 7774m^2n - 1138mn^2 - 6806n^3$$

$$508) (12x + 22y)(50x^2 - 20xy - 69y^2)$$

$$600x^3 + 860x^2y - 1268xy^2 - 1518y^3$$

$$510) (97x - 33y)(13x^2 - 94xy - 55y^2)$$

$$1261x^3 - 9547x^2y - 2233xy^2 + 1815y^3$$

$$512) (79u + 89v)(u^2 + 92uv + 63v^2)$$

$$79u^3 + 7357u^2v + 13165uv^2 + 5607v^3$$

$$514) (77x + 59y)(83x^2 - 50xy - 31y^2)$$

$$6391x^3 + 1047x^2y - 5337xy^2 - 1829y^3$$

$$516) (61x + 4y)(90x^2 + 77xy - 16y^2)$$

$$5490x^3 + 5057x^2y - 668xy^2 - 64y^3$$

$$518) (x - 50y)(52x^2 - 2xy - 2y^2)$$

$$52x^3 - 2602x^2y + 98xy^2 + 100y^3$$

$$520) (84m + 66n)(40m^2 - 17mn - 86n^2)$$

$$3360m^3 + 1212m^2n - 8346mn^2 - 5676n^3$$

$$522) (26x + 41y)(21x^2 + 46xy + 22y^2)$$

$$546x^3 + 2057x^2y + 2458xy^2 + 902y^3$$

$$524) (67x - 13y)(28x^2 - 33xy + 37y^2)$$

$$1876x^3 - 2575x^2y + 2908xy^2 - 481y^3$$

$$526) (50u - 68v)(92u^2 + 94uv + 51v^2)$$

$$4600u^3 - 1556u^2v - 3842uv^2 - 3468v^3$$

$$528) (33x + 48y)(80x^2 + 79xy - 33y^2)$$

$$2640x^3 + 6447x^2y + 2703xy^2 - 1584y^3$$

$$529) (49x - 98y)(16x^2 - 48xy - 42y^2) \\ 784x^3 - 3920x^2y + 2646xy^2 + 4116y^3$$

$$531) (13x - 61y)(49x^2 - 78xy - 4y^2) \\ 637x^3 - 4003x^2y + 4706xy^2 + 244y^3$$

$$533) (56m - 91n)(74m^2 - 15mn - 97n^2) \\ 4144m^3 - 7574m^2n - 4067mn^2 + 8827n^3$$

$$535) (98x + 86y)(56x^2 + 49xy + 11y^2) \\ 5488x^3 + 9618x^2y + 5292xy^2 + 946y^3$$

$$537) (38x + 31y)(18x^2 - 30xy + 20y^2) \\ 684x^3 - 582x^2y - 170xy^2 + 620y^3$$

$$539) (79x - 24y)(25x^2 + 97xy + 35y^2) \\ 1975x^3 + 7063x^2y + 437xy^2 - 840y^3$$

$$541) (62u - 83v)(88u^2 + 18uv + 49v^2) \\ 5456u^3 - 6188u^2v + 1544uv^2 - 4067v^3$$

$$543) (45x + 38y)(76x^2 + 3xy - 30y^2) \\ 3420x^3 + 3023x^2y - 1236xy^2 - 1140y^3$$

$$545) (43a + 8b)(58a^2 + 66ab + 78b^2) \\ 2494a^3 + 3302a^2b + 3882ab^2 + 624b^3$$

$$547) (25x - 71y)(46x^2 + 51xy - 6y^2) \\ 1150x^3 - 1991x^2y - 3771xy^2 + 426y^3$$

$$549) (68m + 100n)(71m^2 - 91mn - 99n^2) \\ 4828m^3 + 912m^2n - 15832mn^2 - 9900n^3$$

$$551) (7m + 45n)(34m^2 + 36mn - 85n^2) \\ 238m^3 + 1782m^2n + 1025mn^2 - 3825n^3$$

$$553) (92x - 9y)(40x^2 - 43xy - 70y^2) \\ 3680x^3 - 4316x^2y - 6053xy^2 + 630y^3$$

$$555) (32x - 64y)(3x^2 + 84xy - 61y^2) \\ 96x^3 + 2496x^2y - 7328xy^2 + 3904y^3$$

$$530) (31a + 19b)(4a^2 - 63ab + 75b^2) \\ 124a^3 - 1877a^2b + 1128ab^2 + 1425b^3$$

$$532) (15a - 36b)(68a^2 + 64ab + 90b^2) \\ 1020a^3 - 1488a^2b - 954ab^2 - 3240b^3$$

$$534) (73x - 6y)(86x^2 - 18xy + 45y^2) \\ 6278x^3 - 1830x^2y + 3393xy^2 - 270y^3$$

$$536) (96m + 56n)(37m^2 - 89mn - 83n^2) \\ 3552m^3 - 6472m^2n - 12952mn^2 - 4648n^3$$

$$538) (80x + y)(43x^2 + 33xy - 73y^2) \\ 3440x^3 + 2683x^2y - 5807xy^2 - 73y^3$$

$$540) (20x - 54y)(6x^2 - 45xy - 59y^2) \\ 120x^3 - 1224x^2y + 1250xy^2 + 3186y^3$$

$$542) (61x + 93y)(13x^2 + 82xy - 44y^2) \\ 793x^3 + 6211x^2y + 4942xy^2 - 4092y^3$$

$$544) (2u + 63v)(95u^2 - 61uv + 64v^2) \\ 190u^3 + 5863u^2v - 3715uv^2 + 4032v^3$$

$$546) (85x - 17y)(83x^2 - 76xy - 20y^2) \\ 7055x^3 - 7871x^2y - 408xy^2 + 340y^3$$

$$548) (27a - 46b)(64a^2 - 12ab + 87b^2) \\ 1728a^3 - 3268a^2b + 2901ab^2 - 4002b^3$$

$$550) (9x + 75y)(52x^2 - 28xy + 9y^2) \\ 468x^3 + 3648x^2y - 2019xy^2 + 675y^3$$

$$552) (50x + 15y)(15x^2 + 99xy + 23y^2) \\ 750x^3 + 5175x^2y + 2635xy^2 + 345y^3$$

$$554) (91x - 39y)(21x^2 + 21xy + 33y^2) \\ 1911x^3 + 1092x^2y + 2184xy^2 - 1287y^3$$

$$556) (75u - 94v)(85u^2 - 58uv + 47v^2) \\ 6375u^3 - 12340u^2v + 8977uv^2 - 4418v^3$$

$$557) (73x + 82y)(9x^2 + 5xy - 46y^2)$$

$$657x^3 + 1103x^2y - 2948xy^2 - 3772y^3$$

$$559) (57x + 28y)(73x^2 - 74xy - 32y^2)$$

$$4161x^3 - 2174x^2y - 3896xy^2 - 896y^3$$

$$561) (98x - 27y)(80x^2 + 54xy - 17y^2)$$

$$7840x^3 + 3132x^2y - 3124xy^2 + 459y^3$$

$$563) (37x - 87y)(42x^2 - 25xy - 8y^2)$$

$$1554x^3 - 4579x^2y + 1879xy^2 + 696y^3$$

$$565) (21x + 60y)(49x^2 + 97xy + 7y^2)$$

$$1029x^3 + 4977x^2y + 5967xy^2 + 420y^3$$

$$567) (62x + 5y)(12x^2 + 23xy + 21y^2)$$

$$744x^3 + 1486x^2y + 1417xy^2 + 105y^3$$

$$569) (3x - 20y)(37x^2 + 82xy - 72y^2)$$

$$111x^3 - 494x^2y - 1856xy^2 + 1440y^3$$

$$571) (87u + 97v)(82u^2 + 71uv + 45v^2)$$

$$7134u^3 + 14131u^2v + 10802uv^2 + 4365v^3$$

$$573) (26u + 42v)(88u^2 - 8uv + 59v^2)$$

$$2288u^3 + 3488u^2v + 1198uv^2 + 2478v^3$$

$$575) (67a - 13b)(51a^2 - 86ab + 74b^2)$$

$$3417a^3 - 6425a^2b + 6076ab^2 - 962b^3$$

$$577) (51a - 67b)(58a^2 + 41ab + 88b^2)$$

$$2958a^3 - 1795a^2b + 1741ab^2 - 5896b^3$$

$$579) (92m + 79n)(64m^2 - 38mn + 98n^2)$$

$$5888m^3 + 1560m^2n + 6014mn^2 + 7742n^3$$

$$581) (76m + 24n)(27m^2 + 84mn - 89n^2)$$

$$2052m^3 + 7032m^2n - 4748mn^2 - 2136n^3$$

$$583) (15x - 30y)(34x^2 + 10xy - 74y^2)$$

$$510x^3 - 870x^2y - 1410xy^2 + 2220y^3$$

$$558) (14u + 52v)(92u^2 + 69uv + 61v^2)$$

$$1288u^3 + 5750u^2v + 4442uv^2 + 3172v^3$$

$$560) (55a - 2b)(54a^2 - 10ab + 76b^2)$$

$$2970a^3 - 658a^2b + 4200ab^2 - 152b^3$$

$$562) (39a - 57b)(61a^2 - 89ab + 85b^2)$$

$$2379a^3 - 6948a^2b + 8388ab^2 - 4845b^3$$

$$564) (80m + 89n)(68m^2 + 38mn + 100n^2)$$

$$5440m^3 + 9092m^2n + 11382mn^2 + 8900n^3$$

$$566) (20m + 35n)(30m^2 - 41mn - 87n^2)$$

$$600m^3 + 230m^2n - 3175mn^2 - 3045n^3$$

$$568) (2x - 50y)(18x^2 - 56xy + 36y^2)$$

$$36x^3 - 1012x^2y + 2872xy^2 - 1800y^3$$

$$570) (44x - 74y)(100x^2 + 8xy - 58y^2)$$

$$4400x^3 - 7048x^2y - 3144xy^2 + 4292y^3$$

$$572) (85x + 72y)(6x^2 - 71xy - 48y^2)$$

$$510x^3 - 5603x^2y - 9192xy^2 - 3456y^3$$

$$574) (69x + 12y)(70x^2 + 56xy - 34y^2)$$

$$4830x^3 + 4704x^2y - 1674xy^2 - 408y^3$$

$$576) (9x - 42y)(76x^2 - 23xy - 19y^2)$$

$$684x^3 - 3399x^2y + 795xy^2 + 798y^3$$

$$578) (49x - 97y)(39x^2 + 99xy - 5y^2)$$

$$1911x^3 + 1068x^2y - 9848xy^2 + 485y^3$$

$$580) (33x + 49y)(46x^2 + 26xy + 5y^2)$$

$$1518x^3 + 3112x^2y + 1439xy^2 + 245y^3$$

$$582) (74x - 5y)(8x^2 - 53xy + 19y^2)$$

$$592x^3 - 3962x^2y + 1671xy^2 - 95y^3$$

$$584) (58x - 60y)(15x^2 + 69xy + 33y^2)$$

$$870x^3 + 3102x^2y - 2226xy^2 - 1980y^3$$

$$585) (56x - 90y)(97x^2 - 69xy - 60y^2)$$
$$5432x^3 - 12594x^2y + 2850xy^2 + 5400y^3$$

$$587) (40x + 56y)(3x^2 + 54xy - 50y^2)$$
$$120x^3 + 2328x^2y + 1024xy^2 - 2800y^3$$

$$589) (22a - 23b)(48a^2 + 43ab + 72b^2)$$
$$1056a^3 - 158a^2b + 595ab^2 - 1656b^3$$

$$591) (21x - 53y)(73x^2 - 99xy - 21y^2)$$
$$1533x^3 - 5948x^2y + 4806xy^2 + 1113y^3$$

$$593) (5x + 93y)(36x^2 + 28xy - 7y^2)$$
$$180x^3 + 3488x^2y + 2569xy^2 - 651y^3$$

$$595) (45x + 39y)(42x^2 - 51xy + 7y^2)$$
$$1890x^3 - 657x^2y - 1674xy^2 + 273y^3$$

$$597) (86x - 16y)(5x^2 + 71xy + 17y^2)$$
$$430x^3 + 6026x^2y + 326xy^2 - 272y^3$$

$$599) (70x - 71y)(12x^2 - 3xy + 31y^2)$$
$$840x^3 - 1062x^2y + 2383xy^2 - 2201y^3$$

$$586) (99u + 86v)(79u^2 - 5uv + 48v^2)$$
$$7821u^3 + 6299u^2v + 4322uv^2 + 4128v^3$$

$$588) (39u + 32v)(85u^2 - 84uv + 57v^2)$$
$$3315u^3 - 556u^2v - 465uv^2 + 1824v^3$$

$$590) (81x + 2y)(66x^2 - 20xy - 36y^2)$$
$$5346x^3 - 1488x^2y - 2956xy^2 - 72y^3$$

$$592) (63a - 78b)(54a^2 - 36ab + 86b^2)$$
$$3402a^3 - 6480a^2b + 8226ab^2 - 6708b^3$$

$$594) (3m + 69n)(61m^2 + 87mn - 100n^2)$$
$$183m^3 + 4470m^2n + 5703mn^2 - 6900n^3$$

$$596) (88m + 9n)(24m^2 + 13mn - 91n^2)$$
$$2112m^3 + 1360m^2n - 7891mn^2 - 819n^3$$

$$598) (28x - 46y)(30x^2 - 66xy - 76y^2)$$
$$840x^3 - 3228x^2y + 908xy^2 + 3496y^3$$

$$600) (68x - 100y)(94x^2 + 56xy - 62y^2)$$
$$6392x^3 - 5592x^2y - 9816xy^2 + 6200y^3$$