

## Multiplying polynomials - Integers - Simplify product of binomials

**Simplify integer product with two variables:**

1)  $(5m + 5n)(6m - 7n)$

2)  $(2m - 2n)(2m + n)$

3)  $(7x - 7y)(4x + 5y)$

4)  $(4x - 5y)(8x + 7y)$

5)  $(6x + y)(8x + 4y)$

6)  $(u - 2v)(5u - 4v)$

7)  $(6u - 5v)(u + 3v)$

8)  $(3x + 3y)(3x - y)$

9)  $(x - y)(4x + 3y)$

10)  $(2u + 2v)(6u - 6v)$

11)  $(5x + 8y)(5x + 6y)$

12)  $(8a + 5b)(3a + 2b)$

13)  $(2x - 7y)(7x - 6y)$

14)  $(4a - 2b)(8a + b)$

15)  $(m - 5n)(2m - 8n)$

16)  $(7x - 5y)(6x - 3y)$

17)  $(3x - 2y)(x - 4y)$

18)  $(7m + 3n)(3m - 8n)$

19)  $(2x + 5y)(5x + 8y)$

20)  $(8x + 7y)(x - y)$

21)  $(6u + 2v)(3u + 3v)$

22)  $(7x + 2y)(5x + 8y)$

23)  $(2u + 5v)(8u + 2v)$

24)  $(5x - 7y)(7x - 2y)$

25)  $(7a - 2b)(4a - 7b)$

26)  $(x - 5y)(2x - 3y)$

27)  $(7x - 2y)(7x + 5y)$

28)  $(5a + 5b)(5a + 5b)$

29)  $(4a - 2b)(3a - 3b)$

30)  $(4x + 5y)(5x + 4y)$

31)  $(6m + 5n)(2m + 4n)$

32)  $(3m + 7n)(6m - n)$

33)  $(8x + 2y)(8x + 4y)$

34)  $(8x - 7y)(3x - 2y)$

35)  $(2u - 2v)(2u + 3v)$

36)  $(4x - 5y)(8x + 6y)$

37)  $(7u - 7v)(6u + 3v)$

38)  $(3x + 6y)(5x + y)$

39)  $(6x + 7y)(6x - 8y)$

40)  $(4a + 3b)(2a + b)$

41)  $(x - 3y)(4x + 6y)$

42)  $(3x + 2y)(6x - 4y)$

43)  $(5a + 7b)(3a + 8b)$

44)  $(8x - 4y)(x - y)$

45)  $(a + 6b)(7a - 8b)$

46)  $(2m - 7n)(2m - n)$

47)  $(8m - 5n)(4m + 7n)$

48)  $(4x - 2y)(6x + 3y)$

49)  $(x + 2y)(4x - 2y)$

50)  $(4x - 3y)(x - 2y)$

51)  $(3u + 5v)(4u - 7v)$

52)  $(7x - 8y)(7x - 2y)$

53)  $(7u + 2v)(7u + v)$

54)  $(6a - b)(a + 5b)$

55)  $(5x + 2y)(2x - 4y)$

56)  $(4a - 8b)(5a + 4b)$

57)  $(4x + 5y)(5x + 3y)$

58)  $(2x + 4y)(7x + 4y)$

59)  $(a - 5b)(a - b)$

60)  $(8x - 2y)(3x + 3y)$

61)  $(7m - 3n)(6m - 2n)$

62)  $(x + 2y)(4x - 6y)$

63)  $(3m - 5n)(7m - 6n)$

64)  $(3x - 6y)(2x + 7y)$

65)  $(6x + 5y)(8x + 6y)$

66)  $(2u + 7v)(5u + v)$

67)  $(8u - 8v)(u - 8v)$

68)  $(6x + 4y)(3x + 5y)$

69)  $(5a - 5b)(6a - b)$

70)  $(x - 2y)(4x - 8y)$

71)  $(a - 3b)(3a + 7b)$

72)  $(7x + 7y)(6x - y)$

73)  $(4x + 2y)(x - 6y)$

74)  $(6a - b)(7a + 7b)$

75)  $(3m + 2n)(4m - 2n)$

76)  $(x - 3y)(3x - 4y)$

77)  $(8m + 4n)(3m - 3n)$

78)  $(6x + 7y)(x + y)$

79)  $(2x - 8y)(7x - 7y)$

80)  $(5x - 3y)(5x - 4y)$

81)  $(7u - 5v)(3u - 8v)$

82)  $(2x - 7y)(6x + 4y)$

83)  $(4u - 3v)(8u + 8v)$

84)  $(6x + 2y)(6x + 3y)$

85)  $(a - b)(4a - b)$

86)  $(3x + 4y)(2x + 3y)$

87)  $(6a + 2b)(2a - 6b)$

88)  $(2m + 4n)(5m - 3n)$

89)  $(6x - 2y)(3x - 6y)$

90)  $(5x - 8y)(3x - 7y)$

91)  $(8m - 3n)(2m + 5n)$

92)  $(4m - 5n)(8m - 8n)$

93)  $(2x - 6y)(8x - 8y)$

94)  $(8x - 3y)(5x - 8y)$

95)  $(3u - v)(u + 8v)$

96)  $(3u + v)(2u - v)$

97)  $(7x + 4y)(8x - 5y)$

98)  $(3x + 7y)(4x - 6y)$

99)  $(6a + 4b)(a + 7b)$

100)  $(x + 2y)(3x - 4y)$

101)  $(9x + 6y)(11x - 2y)$

102)  $(7a + 2b)(3a - 5b)$

103)  $(9x - 9y)(8x + 9y)$

104)  $(7m - 12n)(9m - n)$

105)  $(4x + 2y)(x - 5y)$

106)  $(6m - 2n)(6m + 10n)$

107)  $(4x + 12y)(12x + 9y)$

108)  $(m + 8n)(12m - 4n)$

109)  $(x - 6y)(10x - 11y)$

110)  $(4x - 3y)(4x + 11y)$

111)  $(x + 4y)(2x + 11y)$

112)  $(11u + 5v)(6u + v)$

113)  $(11u + 8v)(10u - 10v)$

114)  $(6a + 10b)(9a + 4b)$

115)  $(8x + 9y)(2x + 6y)$

116)  $(6a - 4b)(11a - 9b)$

117)  $(9x - 11y)(12x + 3y)$

118)  $(3x + 10y)(3x - 12y)$

119)  $(3x - 5y)(9x - 8y)$

120)  $(6m + 6n)(3m + 2n)$

121)  $(3x + 6y)(6x + 3y)$

122)  $(10m + 3n)(m - 3n)$

123)  $(11x - 2y)(12x - 11y)$

124)  $(11u + 8v)(5u - 6v)$

125)  $(3x + 2y)(2x + 4y)$

126)  $(7m + 12n)(12m - 11n)$

127)  $(8x + 8y)(8x - 6y)$

128)  $(10u - 6v)(2u + 5v)$

129)  $(8x - 3y)(10x - 10y)$

130)  $(5a + 4b)(8a + 9b)$

131)  $(8x - 7y)(6x - 4y)$

132)  $(5a - 11b)(6a - 5b)$

133)  $(2x + 4y)(11x + 10y)$

134)  $(5m - 11n)(2m + n)$

135)  $(2x - 4y)(3x - 4y)$

136)  $(5m + 5n)(5m + 8n)$

137)  $(2x + 6y)(x + 7y)$

138)  $(12m - 5n)(m - 4n)$

139)  $(10u + 2v)(12u - 3v)$

140)  $(10x - 8y)(7x + 11y)$

141)  $(12x + 6y)(12x + 8y)$

142)  $(9u + 12v)(10u + 8v)$

143)  $(7x - 9y)(5x + 12y)$

144)  $(7x + y)(2x - 2y)$

145)  $(4a - 2b)(3a + 12b)$

146)  $(7x - 6y)(8x + 9y)$

147)  $(4a + 8b)(4a - 12b)$

148)  $(4m - 7n)(6m + 3n)$

149)  $(x + 4y)(6x - 12y)$

150)  $(12m + 4n)(3m - 11n)$

151)  $(x - 11y)(11x - y)$

152)  $(11x - 11y)(9x - 2y)$

153)  $(x + 2y)(10x - 3y)$

154)  $(9x + 10y)(x - 10y)$

155)  $(11x - y)(7x + 4y)$

156)  $(9u - 5v)(7u + v)$

157)  $(9u + 6v)(5u + 5v)$

158)  $(6x - 8y)(12x - 10y)$

159)  $(6x + 2y)(10x + y)$

160)  $(3a - 9b)(10a - 9b)$

161)  $(3a + b)(8a + 2b)$

162)  $(6x + 12y)(3x + 6y)$

163)  $(3m + 12n)(m + 6n)$

164)  $(x - 2y)(x + 5y)$

165)  $(5x - 12y)(12x + 8y)$

166)  $(11m - 3n)(11m - 8n)$

167)  $(11x - 10y)(4x - 3y)$

168)  $(10x + 7y)(11x - y)$

169)  $(8x + 4y)(9x - 7y)$

170)  $(8u - 11v)(7u - 3v)$

171)  $(5x + 10y)(7x - 6y)$

172)  $(8u - v)(12u + 8v)$

173)  $(5x - 4y)(5x - 2y)$

174)  $(5x + 6y)(10x + 9y)$

175)  $(2a + 10b)(5a - 5b)$

176)  $(2a - 5b)(3a - b)$

177)  $(3x + 6y)(5x + 12y)$

178)  $(12x + 2y)(x - 2y)$

179)  $(10m - 2n)(6m - 4n)$

180)  $(10m + 12n)(8m + 10n)$

181)  $(7x + 12y)(11x + 11y)$

182)  $(10x + 8y)(12x + 3y)$

183)  $(4x - 7y)(9x + 11y)$

184)  $(7u + 8v)(u + v)$

185)  $(7x - 3y)(4x - 10y)$

186)  $(4x + 4y)(2x - 9y)$

187)  $(2a + 10b)(9a - 3b)$

188)  $(4x - 11y)(12x + 2y)$

189)  $(12x - y)(5x - 12y)$

190)  $(2u - 7v)(7u + 12v)$

191)  $(a - 4b)(10a + 2b)$

192)  $(12x + 10y)(3x - 8y)$

193)  $(9m + 6n)(3m - 11n)$

194)  $(12x - 5y)(8x + 3y)$

195)  $(9m - 9n)(m - 7n)$

196)  $(6x + 6y)(6x - 11y)$

197)  $(9x + 2y)(6x + 4y)$

198)  $(6x - 9y)(12x - 7y)$

199)  $(6u + 8v)(9u + 5v)$

200)  $(4x + 12y)(4x - 10y)$

201)  $(17x + 9y)(18x - 17y)$

202)  $(14u - 11v)(8u + 7v)$

203)  $(20a - 3b)(15a + 4b)$

204)  $(2x + 18y)(18x - 20y)$

205)  $(16x - 15y)(5x - 14y)$

206)  $(18m + 14n)(2m + 7n)$

207)  $(4a + 5b)(15a + b)$

208)  $(7x + 2y)(12x - 19y)$

209)  $(x - 7y)(4x - 16y)$

210)  $(3m - 19n)(m + 4n)$

211)  $(20x + y)(12x - 13y)$

212)  $(5x + 9y)(19x - 16y)$

213)  $(9x - 11y)(9x + y)$

214)  $(11u + 18v)(19u - 19v)$

215)  $(2x - 2y)(9x + 8y)$

216)  $(8x + 6y)(16x + 5y)$

217)  $(4u - 15v)(6u - 13v)$

218)  $(13x + 14y)(16x + 11y)$

219)  $(10a - 7b)(13a - 16b)$

220)  $(6x - 18y)(2x + 8y)$



221)  $(16a + 2b)(13a - 9b)$

222)  $(18x - 11y)(10x + 11y)$

223)  $(8m + 10n)(20m - 12n)$

224)  $(12x - 19y)(2x + 5y)$

225)  $(11x - 2y)(9x + 9y)$

226)  $(20x - 14y)(7x - 9y)$

227)  $(14m + 18n)(20m - 15n)$

228)  $(16x + 6y)(17x + 6y)$

229)  $(13x - 6y)(6x - 12y)$

230)  $(19x + 3y)(14x - 15y)$

231)  $(15u - 18v)(3u + 9v)$

232)  $(3x + 2y)(14x - 8y)$

233)  $(u + 14v)(17u + 12v)$

234)  $(17x + 10y)(12x + 5y)$

235)  $(6a - 2b)(10a + 12b)$

236)  $(2x + 19y)(19x + 18y)$

237)  $(3a - 13b)(8a + 14b)$

238)  $(16x - 14y)(7x - 8y)$

239)  $(19m + 7n)(18m + 9n)$

240)  $(x - 6y)(7x - 11y)$

241)  $(4m + 15n)(18m + 16n)$

242)  $(6x + 3y)(15x - 5y)$

243)  $(3x - 18y)(4x + 10y)$

244)  $(20u + 11v)(14u - 8v)$

245)  $(18x - 18y)(4x + 13y)$

246)  $(9x - 10y)(12x + 16y)$

247)  $(2x - 2y)(11x + 13y)$

248)  $(5u + 19v)(u - 10v)$

249)  $(11a - 13b)(a - 4b)$

250)  $(4a - 5b)(8a - 7b)$

251)  $(13x + 15y)(18x + 16y)$

252)  $(7x + 7y)(19x + 10y)$

253)  $(10m + 3n)(16m - 10n)$

254)  $(12x - 9y)(5x + 20y)$

255)  $(6x - 18y)(5x + 14y)$

256)  $(8x + 11y)(2x - 7y)$

257)  $(15m + 3n)(15m - 4n)$

258)  $(18x - y)(12x + 17y)$

259)  $(14x + 19y)(2x - y)$

260)  $(10u + 7v)(12u + 14v)$

261)  $(20x - 13y)(9x - 3y)$

262)  $(13x - 5y)(9x - 6y)$

263)  $(a - 17b)(19a + 17b)$

264)  $(18x + 3y)(17x + 19y)$

265)  $(15a - 17b)(6a + 14b)$

266)  $(16u + 16v)(20u + 20v)$

267)  $(3x + 12y)(16x - 3y)$

268)  $(18m + 15n)(8m - 9n)$

269)  $(17x + 20y)(3x - 6y)$

270)  $(5m - n)(13m + 18n)$

271)  $(2x - 13y)(2x - 5y)$

272)  $(8x - 4y)(10x - 2y)$

273)  $(4x + 16y)(20x - 20y)$

274)  $(9u + 17v)(17u - v)$

275)  $(19x + 8y)(14x - 14y)$

276)  $(10x - 17y)(7x + 18y)$

277)  $(6u + 3v)(17u + v)$

278)  $(3x - 8y)(7x - 17y)$

279)  $(9x + 12y)(19x - 15y)$

280)  $(5a + 20b)(4a + 4b)$

281)  $(14x + 8y)(14x + 19y)$

282)  $(12a + 12b)(17a - 2b)$

283)  $(7x + 17y)(x - 16y)$

284)  $(11m - 13n)(11m + n)$

285)  $(17m - 4n)(11m - 2n)$

286)  $(13x - 16y)(3x + 2y)$

287)  $(9x + 4y)(18x + 5y)$

288)  $(19x - 17y)(8x + 19y)$

289)  $(15x + 12y)(18x + 2y)$

290)  $(12u - 8v)(7u - 16v)$

291)  $(17x - 18y)(13x - 3y)$

292)  $(17u + 10v)(8u - 13v)$

293)  $(2a + 8b)(15a - 12b)$

294)  $(14x - 12y)(4x + 5y)$

295)  $(20x - 4y)(12x + 2y)$

296)  $(16a + 17b)(a - 15b)$

297)  $(18x + 13y)(19x + 5y)$

298)  $(m - 16n)(m - 18n)$

299)  $(7m - 8n)(9m - 12n)$

300)  $(4x + 5y)(12x + 8y)$

301)  $(18x - 16y)(49x + 27y)$

302)  $(5x - 29y)(40x + 39y)$

303)  $(44x + 15y)(5x - 49y)$

304)  $(44u + 46v)(38u + 33v)$

305)  $(5x + 2y)(22x + 20y)$

306)  $(31x + 33y)(29x + 45y)$

307)  $(43u - 23v)(46u + 14v)$

308)  $(18a + 8b)(27a + 39b)$

309)  $(31x - 36y)(11x + 27y)$

310)  $(31x - 5y)(19x - 49y)$

311)  $(18a + 39b)(35a + 20b)$

312)  $(6x - 18y)(50x + 3y)$

313)  $(18m - 30n)(17m + 45n)$

314)  $(5x + 14y)(8x + 14y)$

315)  $(44x + 32y)(32x + 8y)$

316)  $(5x + 45y)(41x + 39y)$

317)  $(44m + n)(24m + 27n)$

318)  $(31x - 25y)(48x + 20y)$

319)  $(43x - 37y)(14x + 33y)$

320)  $(31u + 7v)(30u + 2v)$

321)  $(18x - 6y)(21x + 14y)$

322)  $(18x - 19y)(3x - 5y)$

323)  $(5a - 32b)(19a + 8b)$

324)  $(18x + 13y)(10x + 20y)$

325)  $(31u + 38v)(37u + 27v)$

326)  $(5a + 7b)(20a - 11b)$

327)  $(44x + 44y)(43x + 2y)$

328)  $(5m + 31n)(8m + 14n)$

329)  $(43x - 26y)(32x + 9y)$

330)  $(31m - 39n)(16m - 5n)$

331)  $(18x + 37y)(40x - 11y)$

332)  $(31x - 7y)(24x + 20y)$

333)  $(43x + 6y)(32x + 8y)$

334)  $(18u - 33v)(22u + 14v)$

335)  $(5x + 12y)(13x - 17y)$

336)  $(18u - v)(29u - 5v)$

337)  $(30x - 20y)(5x + 2y)$

338)  $(5x + 43y)(45x + 8y)$

339)  $(43a + 30b)(11a - 24b)$

340)  $(5x - 27y)(2x - 11y)$

341)  $(43a - 40b)(18a + 2b)$

342)  $(43m - 8n)(27m - 4n)$

343)  $(31x + 36y)(42x - 5y)$

344)  $(30x - 34y)(24x - 24y)$

345)  $(18m - 21n)(8m + 8n)$

346)  $(31x + 5y)(35x - 30y)$

347)  $(18x + 10y)(15x - 11y)$

348)  $(18x + 42y)(48x - 30y)$

349)  $(5x - 2y)(32x + 2y)$

350)  $(5u + 29v)(13u - 17v)$

351)  $(5u - 41v)(21u - 36v)$

352)  $(43x - 28y)(5x - 5y)$

353)  $(43x + 3y)(37x - 24y)$

354)  $(31a - 9b)(2a - 11b)$

355)  $(43x + 35y)(45x - 42y)$

356)  $(30a - 22b)(10a - 30b)$

357)  $(18x - 35y)(26x - 17y)$

358)  $(18x - 4y)(34x - 36y)$

359)  $(5m + 41n)(50m - 24n)$

360)  $(30m + 9n)(43m - 49n)$

361)  $(17x + 28y)(16x - 11y)$

362)  $(5x - 29y)(32x - 42y)$

363)  $(43u - 11v)(5u - 49v)$

364)  $(43x - 42y)(23x - 30y)$

365)  $(30x + 34y)(47x - 36y)$

366)  $(31x + 2y)(40x - 17y)$

367)  $(30x - 36y)(29x + 46y)$

368)  $(18a + 8b)(45a - 42b)$

369)  $(5x - 5y)(37x - 30y)$

370)  $(18u - 23v)(13u - 23v)$

371)  $(17a + 40b)(2a + 40b)$

372)  $(5x + 27y)(18x - 49y)$

373)  $(43m - 30n)(34m - 36n)$

374)  $(43m + n)(42m + 46n)$

375)  $(31x - 12y)(7x - 42y)$

376)  $(5x - 43y)(26x + 34y)$

377)  $(43x + 33y)(24x + 27y)$

378)  $(30x - 24y)(15x + 40y)$

379)  $(18x - 37y)(31x - 49y)$

380)  $(30u + 7v)(48u - 36v)$

381)  $(18x - 6y)(39x + 34y)$

382)  $(17x + 26y)(21x - 42y)$

383)  $(5u + 38v)(4u + 46v)$

384)  $(43x - 44y)(28x + 40y)$

385)  $(5a - 31b)(37a + 27b)$

386)  $(5a - 6b)(25a + 12b)$

387)  $(43x - 13y)(10x + 21y)$

388)  $(30m + 31n)(26m + 34n)$

389)  $(43x - 25y)(17x + 46y)$

390)  $(18x + 6y)(50x + 27y)$

391)  $(30x - 7y)(15x + 40y)$

392)  $(17u + 37v)(7u + 8v)$

393)  $(30m - 38n)(34m + 15n)$

394)  $(5x + 24y)(23x + 21y)$

395)  $(5x - 45y)(31x + 2y)$

396)  $(17u - 32v)(39u + 34v)$

397)  $(43u - v)(47u + 15v)$

398)  $(4x - 14y)(12x + 27y)$

399)  $(30x - 27y)(20x + 8y)$

400)  $(43a + 30b)(29a + 40b)$

401)  $(35a + 9b)(40a - 34b)$

402)  $(77x - 21y)(22x + 30y)$

403)  $(17x - 76y)(28x - 49y)$

404)  $(59m + 100n)(9m + 14n)$

405)  $(18m - 46n)(3m + 88n)$

406)  $(x + 71y)(92x + 73y)$

407)  $(84x - 9y)(80x + 58y)$

408)  $(42u + 16v)(98u - v)$

409)  $(100x + 46y)(73x - 65y)$

410)  $(82u - 39v)(61u - 80v)$

411)  $(66u - 93v)(68u + 42v)$

412)  $(24x - 69y)(86x - 16y)$

413)  $(65x + 78y)(49x - 95y)$

414)  $(6a + 53b)(30a - 31b)$

415)  $(48x + 23y)(56x + 32y)$

416)  $(47a - 2b)(37a + 91b)$

417)  $(89x - 32y)(18x - 47y)$

418)  $(29x - 86y)(25x + 75y)$

419)  $(31m - 56n)(65m - 20n)$

420)  $(71m + 90n)(6m - 62n)$

421)  $(13x + 60y)(89x + 2y)$

422)  $(11x + 30y)(70x + 60y)$

423)  $(96x - 24y)(76x - 14y)$

424)  $(54u + 5v)(95u - 77v)$

425)  $(94u - 49v)(58u + 45v)$

426)  $(20x + 67y)(46x + 30y)$

427)  $(36x - 79y)(39x - 93y)$

428)  $(18a + 42b)(27a + 93b)$

429)  $(78u + 97v)(64u - 29v)$

430)  $(60x + 13y)(52x - 44y)$

431)  $(2a - 12b)(34a + 14b)$

432)  $(77x - 19y)(21x + 72y)$

433)  $(43m - 72n)(97m - 60n)$

434)  $(25x + 50y)(85x - 75y)$

435)  $(85x - 97y)(22x + 4y)$

436)  $(83m + 74n)(3m + 63n)$

437)  $(66u - 5v)(92u + 47v)$

438)  $(7x - 35y)(73x - 90y)$

439)  $(67x + 20y)(67x - 11y)$

440)  $(50u - 60v)(54u - 27v)$

441)  $(48x - 89y)(36x + 32y)$

442)  $(32x + 57y)(42x - 42y)$

443)  $(30a + 27b)(24a + 17b)$

444)  $(90u + 87v)(61u + 96v)$



445)  $(73x + 2y)(49x + 80y)$

446)  $(14a - 28b)(30a - 57b)$

447)  $(55m - 82n)(94m + 65n)$

448)  $(12x - 52y)(12x + y)$

449)  $(97x + 94y)(18x - 72y)$

450)  $(37x + 39y)(82x + 50y)$

451)  $(79x + 9y)(63x - 88y)$

452)  $(96m + 64n)(84m - 9n)$

453)  $(78u - 15v)(89u - 24v)$

454)  $(19x - 45y)(70x + 34y)$

455)  $(62u - 75v)(51u + 98v)$

456)  $(60x - 100y)(32x - 39y)$

457)  $(a + 71b)(58a + 19b)$

458)  $(44x + 46y)(39x + 83y)$

459)  $(42a + 17b)(20a - 55b)$

460)  $(85x - 8y)(46x + 4y)$

461)  $(26a - 38b)(27a + 68b)$

462)  $(24x - 63y)(8x - 70y)$

463)  $(8x + 83y)(15x + 52y)$

464)  $(67m - 93n)(91m - 11n)$

465)  $(7m + 54n)(97m - 85n)$

466)  $(92x - y)(60x + 37y)$

467)  $(49x + 24y)(79x - 27y)$

468)  $(90u - 31v)(85u - 100v)$

469)  $(31x - 56y)(67x - 37y)$

470)  $(72x + 91y)(29x + 85y)$

471)  $(56x + 36y)(36x + 6y)$

472)  $(74u - 86v)(48u + 22v)$

473)  $(14a + 61b)(55a - 52b)$

474)  $(54a + 6b)(17a + 70b)$

475)  $(97x - 19y)(42x - 67y)$

476)  $(37x - 78y)(5x + 55y)$

477)  $(38a - 48b)(24a - 9b)$

478)  $(79m + 98n)(87m - 83n)$

479)  $(20x + 68y)(12x - 24y)$

480)  $(19m + 43n)(94m + 39n)$

481)  $(61x + 13y)(75x - 98y)$

482)  $(u - 41v)(82u + 24v)$

483)  $(3x - 11y)(57x - 39y)$

484)  $(86u - 96v)(45u - 55v)$

485)  $(43x - 66y)(63x + 88y)$

486)  $(84x + 80y)(26x + 9y)$

487)  $(26a + 50b)(51a + 72b)$

488)  $(68x + 21y)(33x - 65y)$

489)  $(9a - 4b)(14a - 6b)$

490)  $(8x - 34y)(39x + 57y)$

491)  $(91m + 87n)(84m + 42n)$

492)  $(50a - 59b)(20a - 80b)$

493)  $(93x - 89y)(2x - 22y)$

494)  $(73x + 3y)(72x + 27y)$

495)  $(32x + 58y)(8x - 96y)$

496)  $(15x - 22y)(53x + 90y)$

497)  $(75m + 33n)(91m - 37n)$

498)  $(57u - 52v)(79u - 52v)$

499)  $(56x - 82y)(60x + 11y)$

500)  $(98u + 95v)(41u + 75v)$

$$501) (39x + 65y)(23x - 68y)$$

$$502) (80x + 10y)(29x + 60y)$$

$$503) (38a + 40b)(48a - 4b)$$

$$504) (22a - 15b)(11a - 83b)$$

$$505) (20x - 45y)(93x - 19y)$$

$$506) (62a - 69b)(17a + 44b)$$

$$507) (2m + 77n)(81m - 34n)$$

$$508) (4x - 99y)(99x - 93y)$$

$$509) (45x + 47y)(5x + 29y)$$

$$510) (87m + 17n)(87m + 93n)$$

$$511) (85x - 7y)(69x - 50y)$$

$$512) (27x - 37y)(50x + 14y)$$

$$513) (69u - 62v)(75u + 77v)$$

$$514) (9u + 84v)(38u - v)$$

$$515) (51x + 54y)(19x + 62y)$$

$$516) (68x - 92y)(57x - 65y)$$

$$517) (50a + 30b)(45a - 80b)$$

$$518) (32x - 55y)(90x - 96y)$$

$$519) (92x + 17y)(15x + 40y)$$

$$520) (74m - 85n)(14m - 32n)$$

$$521) (34a - 25b)(7a + 47b)$$

$$522) (16x + 91y)(96x + 32y)$$

$$523) (14m + 62n)(78m + 95n)$$

$$524) (57x + 37y)(2x - 47y)$$

$$525) (99m + 7n)(84m + 16n)$$

$$526) (39x - 48y)(47x - 63y)$$

$$527) (81u - 73v)(72u + v)$$

$$528) (80x + 99y)(53x + 65y)$$

$$529) (97x - 18y)(65x + 80y)$$

$$530) (64x + 44y)(16x - 14y)$$

$$531) (21u + 74v)(35u - 78v)$$

$$532) (62a + 14b)(41a + 49b)$$

$$533) (3x - 11y)(23x - 93y)$$

$$534) (44x - 65y)(86x + 34y)$$

$$535) (87m - 95n)(11m + 93n)$$

$$536) (46a - 41b)(4a - 30b)$$

$$537) (28x + 81y)(93x - 45y)$$

$$538) (26m + 51n)(74m + 19n)$$

$$539) (10m - 4n)(81m - 60n)$$

$$540) (9x - 28y)(62x + 3y)$$

$$541) (69x + 26y)(100x + 77y)$$

$$542) (51x - 58y)(43x + 67y)$$

$$543) (93u - 88v)(69u - 75v)$$

$$544) (92x + 88y)(50x - 12y)$$

$$545) (76x + 34y)(13x - 91y)$$

$$546) (15x - 21y)(19x + 36y)$$

$$547) (33u + 58v)(31u + 52v)$$

$$548) (74a + 4b)(38a - 27b)$$

$$549) (58a - 51b)(a + 95b)$$

$$550) (56x - 76y)(83x - 42y)$$

$$551) (99m + 95n)(7m + 21n)$$

$$552) (40x + 71y)(90x + 80y)$$

$$553) (82m + 41n)(71m - 58n)$$

$$554) (81x + 11y)(96x + 6y)$$

$$555) (22m - 14n)(78m + 65n)$$

$$556) (65x - 44y)(59x - 73y)$$

$$557) (63x - 69y)(40x - 9y)$$

$$558) (47x + 78y)(47x - 88y)$$

$$559) (4u - 98v)(65u + 49v)$$

$$560) (45u + 48v)(28u - 25v)$$

$$561) (88x + 23y)(9x + 39y)$$

$$562) (28x - 32y)(16x - 40y)$$

$$563) (29a - 7b)(35a + 98b)$$

$$564) (70a - 61b)(98a + 24b)$$

$$565) (11x - 91y)(80x + 82y)$$

$$566) (10m + 85n)(4m - 55n)$$

$$567) (52x + 55y)(86x + 8y)$$

$$568) (93x - 49y)(54x + 78y)$$

$$569) (34x - 24y)(74x - 7y)$$

$$570) (77x - 54y)(56x + 52y)$$

$$571) (75x - 79y)(37x - 86y)$$

$$572) (95m + 30n)(68m + 67n)$$

$$573) (17u + 92v)(62u - 22v)$$

$$574) (59x + 67y)(44x + 36y)$$

$$575) (100x + 8y)(6x - 37y)$$

$$576) (57u + 37v)(25u + 100v)$$

$$577) (41a - 17b)(31a + 26b)$$

$$578) (82a - 72b)(95a - 53b)$$

$$579) (23x + 99y)(76x + 11y)$$

$$580) (40x - 47y)(13x + 85y)$$

$$581) (22m + 75n)(m + 69n)$$

$$582) (6m + 20n)(64m - 4n)$$

$$583) (64x + 45y)(83x - 68y)$$

$$584) (4x - 10y)(46x + 54y)$$

$$585) (46x - 35y)(71x - 83y)$$

$$586) (87x - 94y)(34x + 39y)$$

$$587) (29u + 82v)(59u - 99v)$$

$$588) (89x - 65y)(52x - 20y)$$

$$589) (69u + 27v)(22u + 24v)$$

$$590) (11x - 3y)(3x + 87y)$$

$$591) (71x + 52y)(40x - 35y)$$

$$592) (52x - 57y)(9x + 8y)$$

$$593) (53a - 28b)(28a - 50b)$$

$$594) (94a - 82b)(92a + 72b)$$

$$595) (36x + 89y)(73x - 66y)$$

$$596) (34m + 64n)(98m - 2n)$$

$$597) (76x + 34y)(80x + 57y)$$

$$598) (18m + 4n)(61m - 81n)$$

$$599) (59x - 50y)(68x + 41y)$$

$$600) (16x - 20y)(42x - 17y)$$

## Multiplying polynomials - Integers - Simplify product of binomials

Simplify integer product with two variables:

1)  $(5m + 5n)(6m - 7n)$   
 $30m^2 - 5mn - 35n^2$

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

3)  $(7x - 7y)(4x + 5y)$   
 $28x^2 + 7xy - 35y^2$

4)  $(4x - 5y)(8x + 7y)$   
 $32x^2 - 12xy - 35y^2$

5)  $(6x + y)(8x + 4y)$   
 $48x^2 + 32xy + 4y^2$

6)  $(u - 2v)(5u - 4v)$   
 $5u^2 - 14uv + 8v^2$

7)  $(6u - 5v)(u + 3v)$   
 $6u^2 + 13uv - 15v^2$

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

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

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

11)  $(5x + 8y)(5x + 6y)$   
 $25x^2 + 70xy + 48y^2$

12)  $(8a + 5b)(3a + 2b)$   
 $24a^2 + 31ab + 10b^2$

13)  $(2x - 7y)(7x - 6y)$   
 $14x^2 - 61xy + 42y^2$

14)  $(4a - 2b)(8a + b)$   
 $32a^2 - 12ab - 2b^2$

15)  $(m - 5n)(2m - 8n)$   
 $2m^2 - 18mn + 40n^2$

16)  $(7x - 5y)(6x - 3y)$   
 $42x^2 - 51xy + 15y^2$

17)  $(3x - 2y)(x - 4y)$   
 $3x^2 - 14xy + 8y^2$

18)  $(7m + 3n)(3m - 8n)$   
 $21m^2 - 47mn - 24n^2$

19)  $(2x + 5y)(5x + 8y)$   
 $10x^2 + 41xy + 40y^2$

20)  $(8x + 7y)(x - y)$   
 $8x^2 - xy - 7y^2$

21)  $(6u + 2v)(3u + 3v)$   
 $18u^2 + 24uv + 6v^2$

22)  $(7x + 2y)(5x + 8y)$   
 $35x^2 + 66xy + 16y^2$

23)  $(2u + 5v)(8u + 2v)$   
 $16u^2 + 44uv + 10v^2$

24)  $(5x - 7y)(7x - 2y)$   
 $35x^2 - 59xy + 14y^2$

$$25) (7a - 2b)(4a - 7b) \\ 28a^2 - 57ab + 14b^2$$

$$26) (x - 5y)(2x - 3y) \\ 2x^2 - 13xy + 15y^2$$

$$27) (7x - 2y)(7x + 5y) \\ 49x^2 + 21xy - 10y^2$$

$$28) (5a + 5b)(5a + 5b) \\ 25a^2 + 50ab + 25b^2$$

$$29) (4a - 2b)(3a - 3b) \\ 12a^2 - 18ab + 6b^2$$

$$30) (4x + 5y)(5x + 4y) \\ 20x^2 + 41xy + 20y^2$$

$$31) (6m + 5n)(2m + 4n) \\ 12m^2 + 34mn + 20n^2$$

$$32) (3m + 7n)(6m - n) \\ 18m^2 + 39mn - 7n^2$$

$$33) (8x + 2y)(8x + 4y) \\ 64x^2 + 48xy + 8y^2$$

$$34) (8x - 7y)(3x - 2y) \\ 24x^2 - 37xy + 14y^2$$

$$35) (2u - 2v)(2u + 3v) \\ 4u^2 + 2uv - 6v^2$$

$$36) (4x - 5y)(8x + 6y) \\ 32x^2 - 16xy - 30y^2$$

$$37) (7u - 7v)(6u + 3v) \\ 42u^2 - 21uv - 21v^2$$

$$38) (3x + 6y)(5x + y) \\ 15x^2 + 33xy + 6y^2$$

$$39) (6x + 7y)(6x - 8y) \\ 36x^2 - 6xy - 56y^2$$

$$40) (4a + 3b)(2a + b) \\ 8a^2 + 10ab + 3b^2$$

$$41) (x - 3y)(4x + 6y) \\ 4x^2 - 6xy - 18y^2$$

$$42) (3x + 2y)(6x - 4y) \\ 18x^2 - 8y^2$$

$$43) (5a + 7b)(3a + 8b) \\ 15a^2 + 61ab + 56b^2$$

$$44) (8x - 4y)(x - y) \\ 8x^2 - 12xy + 4y^2$$

$$45) (a + 6b)(7a - 8b) \\ 7a^2 + 34ab - 48b^2$$

$$46) (2m - 7n)(2m - n) \\ 4m^2 - 16mn + 7n^2$$

$$47) (8m - 5n)(4m + 7n) \\ 32m^2 + 36mn - 35n^2$$

$$48) (4x - 2y)(6x + 3y) \\ 24x^2 - 6y^2$$

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

$$50) (4x - 3y)(x - 2y) \\ 4x^2 - 11xy + 6y^2$$

$$51) (3u + 5v)(4u - 7v) \\ 12u^2 - uv - 35v^2$$

$$52) (7x - 8y)(7x - 2y) \\ 49x^2 - 70xy + 16y^2$$



$$53) (7u + 2v)(7u + v) \\ 49u^2 + 21uv + 2v^2$$

$$54) (6a - b)(a + 5b) \\ 6a^2 + 29ab - 5b^2$$

$$55) (5x + 2y)(2x - 4y) \\ 10x^2 - 16xy - 8y^2$$

$$56) (4a - 8b)(5a + 4b) \\ 20a^2 - 24ab - 32b^2$$

$$57) (4x + 5y)(5x + 3y) \\ 20x^2 + 37xy + 15y^2$$

$$58) (2x + 4y)(7x + 4y) \\ 14x^2 + 36xy + 16y^2$$

$$59) (a - 5b)(a - b) \\ a^2 - 6ab + 5b^2$$

$$60) (8x - 2y)(3x + 3y) \\ 24x^2 + 18xy - 6y^2$$

$$61) (7m - 3n)(6m - 2n) \\ 42m^2 - 32mn + 6n^2$$

$$62) (x + 2y)(4x - 6y) \\ 4x^2 + 2xy - 12y^2$$

$$63) (3m - 5n)(7m - 6n) \\ 21m^2 - 53mn + 30n^2$$

$$64) (3x - 6y)(2x + 7y) \\ 6x^2 + 9xy - 42y^2$$

$$65) (6x + 5y)(8x + 6y) \\ 48x^2 + 76xy + 30y^2$$

$$66) (2u + 7v)(5u + v) \\ 10u^2 + 37uv + 7v^2$$

$$67) (8u - 8v)(u - 8v) \\ 8u^2 - 72uv + 64v^2$$

$$68) (6x + 4y)(3x + 5y) \\ 18x^2 + 42xy + 20y^2$$

$$69) (5a - 5b)(6a - b) \\ 30a^2 - 35ab + 5b^2$$

$$70) (x - 2y)(4x - 8y) \\ 4x^2 - 16xy + 16y^2$$

$$71) (a - 3b)(3a + 7b) \\ 3a^2 - 2ab - 21b^2$$

$$72) (7x + 7y)(6x - y) \\ 42x^2 + 35xy - 7y^2$$

$$73) (4x + 2y)(x - 6y) \\ 4x^2 - 22xy - 12y^2$$

$$74) (6a - b)(7a + 7b) \\ 42a^2 + 35ab - 7b^2$$

$$75) (3m + 2n)(4m - 2n) \\ 12m^2 + 2mn - 4n^2$$

$$76) (x - 3y)(3x - 4y) \\ 3x^2 - 13xy + 12y^2$$

$$77) (8m + 4n)(3m - 3n) \\ 24m^2 - 12mn - 12n^2$$

$$78) (6x + 7y)(x + y) \\ 6x^2 + 13xy + 7y^2$$

$$79) (2x - 8y)(7x - 7y) \\ 14x^2 - 70xy + 56y^2$$

$$80) (5x - 3y)(5x - 4y) \\ 25x^2 - 35xy + 12y^2$$

$$81) (7u - 5v)(3u - 8v) \\ 21u^2 - 71uv + 40v^2$$

$$82) (2x - 7y)(6x + 4y) \\ 12x^2 - 34xy - 28y^2$$

$$83) (4u - 3v)(8u + 8v) \\ 32u^2 + 8uv - 24v^2$$

$$84) (6x + 2y)(6x + 3y) \\ 36x^2 + 30xy + 6y^2$$

$$85) (a - b)(4a - b) \\ 4a^2 - 5ab + b^2$$

$$86) (3x + 4y)(2x + 3y) \\ 6x^2 + 17xy + 12y^2$$

$$87) (6a + 2b)(2a - 6b) \\ 12a^2 - 32ab - 12b^2$$

$$88) (2m + 4n)(5m - 3n) \\ 10m^2 + 14mn - 12n^2$$

$$89) (6x - 2y)(3x - 6y) \\ 18x^2 - 42xy + 12y^2$$

$$90) (5x - 8y)(3x - 7y) \\ 15x^2 - 59xy + 56y^2$$

$$91) (8m - 3n)(2m + 5n) \\ 16m^2 + 34mn - 15n^2$$

$$92) (4m - 5n)(8m - 8n) \\ 32m^2 - 72mn + 40n^2$$

$$93) (2x - 6y)(8x - 8y) \\ 16x^2 - 64xy + 48y^2$$

$$94) (8x - 3y)(5x - 8y) \\ 40x^2 - 79xy + 24y^2$$

$$95) (3u - v)(u + 8v) \\ 3u^2 + 23uv - 8v^2$$

$$96) (3u + v)(2u - v) \\ 6u^2 - uv - v^2$$

$$97) (7x + 4y)(8x - 5y) \\ 56x^2 - 3xy - 20y^2$$

$$98) (3x + 7y)(4x - 6y) \\ 12x^2 + 10xy - 42y^2$$

$$99) (6a + 4b)(a + 7b) \\ 6a^2 + 46ab + 28b^2$$

$$100) (x + 2y)(3x - 4y) \\ 3x^2 + 2xy - 8y^2$$

$$101) (9x + 6y)(11x - 2y) \\ 99x^2 + 48xy - 12y^2$$

$$102) (7a + 2b)(3a - 5b) \\ 21a^2 - 29ab - 10b^2$$

$$103) (9x - 9y)(8x + 9y) \\ 72x^2 + 9xy - 81y^2$$

$$104) (7m - 12n)(9m - n) \\ 63m^2 - 115mn + 12n^2$$

$$105) (4x + 2y)(x - 5y) \\ 4x^2 - 18xy - 10y^2$$

$$106) (6m - 2n)(6m + 10n) \\ 36m^2 + 48mn - 20n^2$$

$$107) (4x + 12y)(12x + 9y) \\ 48x^2 + 180xy + 108y^2$$

$$108) (m + 8n)(12m - 4n) \\ 12m^2 + 92mn - 32n^2$$

$$109) (x - 6y)(10x - 11y) \\ 10x^2 - 71xy + 66y^2$$

$$111) (x + 4y)(2x + 11y) \\ 2x^2 + 19xy + 44y^2$$

$$113) (11u + 8v)(10u - 10v) \\ 110u^2 - 30uv - 80v^2$$

$$115) (8x + 9y)(2x + 6y) \\ 16x^2 + 66xy + 54y^2$$

$$117) (9x - 11y)(12x + 3y) \\ 108x^2 - 105xy - 33y^2$$

$$119) (3x - 5y)(9x - 8y) \\ 27x^2 - 69xy + 40y^2$$

$$121) (3x + 6y)(6x + 3y) \\ 18x^2 + 45xy + 18y^2$$

$$123) (11x - 2y)(12x - 11y) \\ 132x^2 - 145xy + 22y^2$$

$$125) (3x + 2y)(2x + 4y) \\ 6x^2 + 16xy + 8y^2$$

$$127) (8x + 8y)(8x - 6y) \\ 64x^2 + 16xy - 48y^2$$

$$129) (8x - 3y)(10x - 10y) \\ 80x^2 - 110xy + 30y^2$$

$$131) (8x - 7y)(6x - 4y) \\ 48x^2 - 74xy + 28y^2$$

$$133) (2x + 4y)(11x + 10y) \\ 22x^2 + 64xy + 40y^2$$

$$135) (2x - 4y)(3x - 4y) \\ 6x^2 - 20xy + 16y^2$$

$$110) (4x - 3y)(4x + 11y) \\ 16x^2 + 32xy - 33y^2$$

$$112) (11u + 5v)(6u + v) \\ 66u^2 + 41uv + 5v^2$$

$$114) (6a + 10b)(9a + 4b) \\ 54a^2 + 114ab + 40b^2$$

$$116) (6a - 4b)(11a - 9b) \\ 66a^2 - 98ab + 36b^2$$

$$118) (3x + 10y)(3x - 12y) \\ 9x^2 - 6xy - 120y^2$$

$$120) (6m + 6n)(3m + 2n) \\ 18m^2 + 30mn + 12n^2$$

$$122) (10m + 3n)(m - 3n) \\ 10m^2 - 27mn - 9n^2$$

$$124) (11u + 8v)(5u - 6v) \\ 55u^2 - 26uv - 48v^2$$

$$126) (7m + 12n)(12m - 11n) \\ 84m^2 + 67mn - 132n^2$$

$$128) (10u - 6v)(2u + 5v) \\ 20u^2 + 38uv - 30v^2$$

$$130) (5a + 4b)(8a + 9b) \\ 40a^2 + 77ab + 36b^2$$

$$132) (5a - 11b)(6a - 5b) \\ 30a^2 - 91ab + 55b^2$$

$$134) (5m - 11n)(2m + n) \\ 10m^2 - 17mn - 11n^2$$

$$136) (5m + 5n)(5m + 8n) \\ 25m^2 + 65mn + 40n^2$$

137)  $(2x + 6y)(x + 7y)$

$2x^2 + 20xy + 42y^2$

139)  $(10u + 2v)(12u - 3v)$

$120u^2 - 6uv - 6v^2$

141)  $(12x + 6y)(12x + 8y)$

$144x^2 + 168xy + 48y^2$

143)  $(7x - 9y)(5x + 12y)$

$35x^2 + 39xy - 108y^2$

145)  $(4a - 2b)(3a + 12b)$

$12a^2 + 42ab - 24b^2$

147)  $(4a + 8b)(4a - 12b)$

$16a^2 - 16ab - 96b^2$

149)  $(x + 4y)(6x - 12y)$

$6x^2 + 12xy - 48y^2$

151)  $(x - 11y)(11x - y)$

$11x^2 - 122xy + 11y^2$

153)  $(x + 2y)(10x - 3y)$

$10x^2 + 17xy - 6y^2$

155)  $(11x - y)(7x + 4y)$

$77x^2 + 37xy - 4y^2$

157)  $(9u + 6v)(5u + 5v)$

$45u^2 + 75uv + 30v^2$

159)  $(6x + 2y)(10x + y)$

$60x^2 + 26xy + 2y^2$

161)  $(3a + b)(8a + 2b)$

$24a^2 + 14ab + 2b^2$

163)  $(3m + 12n)(m + 6n)$

$3m^2 + 30mn + 72n^2$

138)  $(12m - 5n)(m - 4n)$

$12m^2 - 53mn + 20n^2$

140)  $(10x - 8y)(7x + 11y)$

$70x^2 + 54xy - 88y^2$

142)  $(9u + 12v)(10u + 8v)$

$90u^2 + 192uv + 96v^2$

144)  $(7x + y)(2x - 2y)$

$14x^2 - 12xy - 2y^2$

146)  $(7x - 6y)(8x + 9y)$

$56x^2 + 15xy - 54y^2$

148)  $(4m - 7n)(6m + 3n)$

$24m^2 - 30mn - 21n^2$

150)  $(12m + 4n)(3m - 11n)$

$36m^2 - 120mn - 44n^2$

152)  $(11x - 11y)(9x - 2y)$

$99x^2 - 121xy + 22y^2$

154)  $(9x + 10y)(x - 10y)$

$9x^2 - 80xy - 100y^2$

156)  $(9u - 5v)(7u + v)$

$63u^2 - 26uv - 5v^2$

158)  $(6x - 8y)(12x - 10y)$

$72x^2 - 156xy + 80y^2$

160)  $(3a - 9b)(10a - 9b)$

$30a^2 - 117ab + 81b^2$

162)  $(6x + 12y)(3x + 6y)$

$18x^2 + 72xy + 72y^2$

164)  $(x - 2y)(x + 5y)$

$x^2 + 3xy - 10y^2$

165)  $(5x - 12y)(12x + 8y)$

$60x^2 - 104xy - 96y^2$

167)  $(11x - 10y)(4x - 3y)$

$44x^2 - 73xy + 30y^2$

169)  $(8x + 4y)(9x - 7y)$

$72x^2 - 20xy - 28y^2$

171)  $(5x + 10y)(7x - 6y)$

$35x^2 + 40xy - 60y^2$

173)  $(5x - 4y)(5x - 2y)$

$25x^2 - 30xy + 8y^2$

175)  $(2a + 10b)(5a - 5b)$

$10a^2 + 40ab - 50b^2$

177)  $(3x + 6y)(5x + 12y)$

$15x^2 + 66xy + 72y^2$

179)  $(10m - 2n)(6m - 4n)$

$60m^2 - 52mn + 8n^2$

181)  $(7x + 12y)(11x + 11y)$

$77x^2 + 209xy + 132y^2$

183)  $(4x - 7y)(9x + 11y)$

$36x^2 - 19xy - 77y^2$

185)  $(7x - 3y)(4x - 10y)$

$28x^2 - 82xy + 30y^2$

187)  $(2a + 10b)(9a - 3b)$

$18a^2 + 84ab - 30b^2$

189)  $(12x - y)(5x - 12y)$

$60x^2 - 149xy + 12y^2$

191)  $(a - 4b)(10a + 2b)$

$10a^2 - 38ab - 8b^2$

166)  $(11m - 3n)(11m - 8n)$

$121m^2 - 121mn + 24n^2$

168)  $(10x + 7y)(11x - y)$

$110x^2 + 67xy - 7y^2$

170)  $(8u - 11v)(7u - 3v)$

$56u^2 - 101uv + 33v^2$

172)  $(8u - v)(12u + 8v)$

$96u^2 + 52uv - 8v^2$

174)  $(5x + 6y)(10x + 9y)$

$50x^2 + 105xy + 54y^2$

176)  $(2a - 5b)(3a - b)$

$6a^2 - 17ab + 5b^2$

178)  $(12x + 2y)(x - 2y)$

$12x^2 - 22xy - 4y^2$

180)  $(10m + 12n)(8m + 10n)$

$80m^2 + 196mn + 120n^2$

182)  $(10x + 8y)(12x + 3y)$

$120x^2 + 126xy + 24y^2$

184)  $(7u + 8v)(u + v)$

$7u^2 + 15uv + 8v^2$

186)  $(4x + 4y)(2x - 9y)$

$8x^2 - 28xy - 36y^2$

188)  $(4x - 11y)(12x + 2y)$

$48x^2 - 124xy - 22y^2$

190)  $(2u - 7v)(7u + 12v)$

$14u^2 - 25uv - 84v^2$

192)  $(12x + 10y)(3x - 8y)$

$36x^2 - 66xy - 80y^2$

$$193) (9m + 6n)(3m - 11n) \\ 27m^2 - 81mn - 66n^2$$

$$195) (9m - 9n)(m - 7n) \\ 9m^2 - 72mn + 63n^2$$

$$197) (9x + 2y)(6x + 4y) \\ 54x^2 + 48xy + 8y^2$$

$$199) (6u + 8v)(9u + 5v) \\ 54u^2 + 102uv + 40v^2$$

$$201) (17x + 9y)(18x - 17y) \\ 306x^2 - 127xy - 153y^2$$

$$203) (20a - 3b)(15a + 4b) \\ 300a^2 + 35ab - 12b^2$$

$$205) (16x - 15y)(5x - 14y) \\ 80x^2 - 299xy + 210y^2$$

$$207) (4a + 5b)(15a + b) \\ 60a^2 + 79ab + 5b^2$$

$$209) (x - 7y)(4x - 16y) \\ 4x^2 - 44xy + 112y^2$$

$$211) (20x + y)(12x - 13y) \\ 240x^2 - 248xy - 13y^2$$

$$213) (9x - 11y)(9x + y) \\ 81x^2 - 90xy - 11y^2$$

$$215) (2x - 2y)(9x + 8y) \\ 18x^2 - 2xy - 16y^2$$

$$217) (4u - 15v)(6u - 13v) \\ 24u^2 - 142uv + 195v^2$$

$$219) (10a - 7b)(13a - 16b) \\ 130a^2 - 251ab + 112b^2$$

$$194) (12x - 5y)(8x + 3y) \\ 96x^2 - 4xy - 15y^2$$

$$196) (6x + 6y)(6x - 11y) \\ 36x^2 - 30xy - 66y^2$$

$$198) (6x - 9y)(12x - 7y) \\ 72x^2 - 150xy + 63y^2$$

$$200) (4x + 12y)(4x - 10y) \\ 16x^2 + 8xy - 120y^2$$

$$202) (14u - 11v)(8u + 7v) \\ 112u^2 + 10uv - 77v^2$$

$$204) (2x + 18y)(18x - 20y) \\ 36x^2 + 284xy - 360y^2$$

$$206) (18m + 14n)(2m + 7n) \\ 36m^2 + 154mn + 98n^2$$

$$208) (7x + 2y)(12x - 19y) \\ 84x^2 - 109xy - 38y^2$$

$$210) (3m - 19n)(m + 4n) \\ 3m^2 - 7mn - 76n^2$$

$$212) (5x + 9y)(19x - 16y) \\ 95x^2 + 91xy - 144y^2$$

$$214) (11u + 18v)(19u - 19v) \\ 209u^2 + 133uv - 342v^2$$

$$216) (8x + 6y)(16x + 5y) \\ 128x^2 + 136xy + 30y^2$$

$$218) (13x + 14y)(16x + 11y) \\ 208x^2 + 367xy + 154y^2$$

$$220) (6x - 18y)(2x + 8y) \\ 12x^2 + 12xy - 144y^2$$

221)  $(16a + 2b)(13a - 9b)$

$208a^2 - 118ab - 18b^2$

223)  $(8m + 10n)(20m - 12n)$

$160m^2 + 104mn - 120n^2$

225)  $(11x - 2y)(9x + 9y)$

$99x^2 + 81xy - 18y^2$

227)  $(14m + 18n)(20m - 15n)$

$280m^2 + 150mn - 270n^2$

229)  $(13x - 6y)(6x - 12y)$

$78x^2 - 192xy + 72y^2$

231)  $(15u - 18v)(3u + 9v)$

$45u^2 + 81uv - 162v^2$

233)  $(u + 14v)(17u + 12v)$

$17u^2 + 250uv + 168v^2$

235)  $(6a - 2b)(10a + 12b)$

$60a^2 + 52ab - 24b^2$

237)  $(3a - 13b)(8a + 14b)$

$24a^2 - 62ab - 182b^2$

239)  $(19m + 7n)(18m + 9n)$

$342m^2 + 297mn + 63n^2$

241)  $(4m + 15n)(18m + 16n)$

$72m^2 + 334mn + 240n^2$

243)  $(3x - 18y)(4x + 10y)$

$12x^2 - 42xy - 180y^2$

245)  $(18x - 18y)(4x + 13y)$

$72x^2 + 162xy - 234y^2$

247)  $(2x - 2y)(11x + 13y)$

$22x^2 + 4xy - 26y^2$

222)  $(18x - 11y)(10x + 11y)$

$180x^2 + 88xy - 121y^2$

224)  $(12x - 19y)(2x + 5y)$

$24x^2 + 22xy - 95y^2$

226)  $(20x - 14y)(7x - 9y)$

$140x^2 - 278xy + 126y^2$

228)  $(16x + 6y)(17x + 6y)$

$272x^2 + 198xy + 36y^2$

230)  $(19x + 3y)(14x - 15y)$

$266x^2 - 243xy - 45y^2$

232)  $(3x + 2y)(14x - 8y)$

$42x^2 + 4xy - 16y^2$

234)  $(17x + 10y)(12x + 5y)$

$204x^2 + 205xy + 50y^2$

236)  $(2x + 19y)(19x + 18y)$

$38x^2 + 397xy + 342y^2$

238)  $(16x - 14y)(7x - 8y)$

$112x^2 - 226xy + 112y^2$

240)  $(x - 6y)(7x - 11y)$

$7x^2 - 53xy + 66y^2$

242)  $(6x + 3y)(15x - 5y)$

$90x^2 + 15xy - 15y^2$

244)  $(20u + 11v)(14u - 8v)$

$280u^2 - 6uv - 88v^2$

246)  $(9x - 10y)(12x + 16y)$

$108x^2 + 24xy - 160y^2$

248)  $(5u + 19v)(u - 10v)$

$5u^2 - 31uv - 190v^2$

$$249) (11a - 13b)(a - 4b)$$

$$11a^2 - 57ab + 52b^2$$

$$251) (13x + 15y)(18x + 16y)$$

$$234x^2 + 478xy + 240y^2$$

$$253) (10m + 3n)(16m - 10n)$$

$$160m^2 - 52mn - 30n^2$$

$$255) (6x - 18y)(5x + 14y)$$

$$30x^2 - 6xy - 252y^2$$

$$257) (15m + 3n)(15m - 4n)$$

$$225m^2 - 15mn - 12n^2$$

$$259) (14x + 19y)(2x - y)$$

$$28x^2 + 24xy - 19y^2$$

$$261) (20x - 13y)(9x - 3y)$$

$$180x^2 - 177xy + 39y^2$$

$$263) (a - 17b)(19a + 17b)$$

$$19a^2 - 306ab - 289b^2$$

$$265) (15a - 17b)(6a + 14b)$$

$$90a^2 + 108ab - 238b^2$$

$$267) (3x + 12y)(16x - 3y)$$

$$48x^2 + 183xy - 36y^2$$

$$269) (17x + 20y)(3x - 6y)$$

$$51x^2 - 42xy - 120y^2$$

$$271) (2x - 13y)(2x - 5y)$$

$$4x^2 - 36xy + 65y^2$$

$$273) (4x + 16y)(20x - 20y)$$

$$80x^2 + 240xy - 320y^2$$

$$275) (19x + 8y)(14x - 14y)$$

$$266x^2 - 154xy - 112y^2$$

$$250) (4a - 5b)(8a - 7b)$$

$$32a^2 - 68ab + 35b^2$$

$$252) (7x + 7y)(19x + 10y)$$

$$133x^2 + 203xy + 70y^2$$

$$254) (12x - 9y)(5x + 20y)$$

$$60x^2 + 195xy - 180y^2$$

$$256) (8x + 11y)(2x - 7y)$$

$$16x^2 - 34xy - 77y^2$$

$$258) (18x - y)(12x + 17y)$$

$$216x^2 + 294xy - 17y^2$$

$$260) (10u + 7v)(12u + 14v)$$

$$120u^2 + 224uv + 98v^2$$

$$262) (13x - 5y)(9x - 6y)$$

$$117x^2 - 123xy + 30y^2$$

$$264) (18x + 3y)(17x + 19y)$$

$$306x^2 + 393xy + 57y^2$$

$$266) (16u + 16v)(20u + 20v)$$

$$320u^2 + 640uv + 320v^2$$

$$268) (18m + 15n)(8m - 9n)$$

$$144m^2 - 42mn - 135n^2$$

$$270) (5m - n)(13m + 18n)$$

$$65m^2 + 77mn - 18n^2$$

$$272) (8x - 4y)(10x - 2y)$$

$$80x^2 - 56xy + 8y^2$$

$$274) (9u + 17v)(17u - v)$$

$$153u^2 + 280uv - 17v^2$$

$$276) (10x - 17y)(7x + 18y)$$

$$70x^2 + 61xy - 306y^2$$



277)  $(6u + 3v)(17u + v)$

$102u^2 + 57uv + 3v^2$

279)  $(9x + 12y)(19x - 15y)$

$171x^2 + 93xy - 180y^2$

281)  $(14x + 8y)(14x + 19y)$

$196x^2 + 378xy + 152y^2$

283)  $(7x + 17y)(x - 16y)$

$7x^2 - 95xy - 272y^2$

285)  $(17m - 4n)(11m - 2n)$

$187m^2 - 78mn + 8n^2$

287)  $(9x + 4y)(18x + 5y)$

$162x^2 + 117xy + 20y^2$

289)  $(15x + 12y)(18x + 2y)$

$270x^2 + 246xy + 24y^2$

291)  $(17x - 18y)(13x - 3y)$

$221x^2 - 285xy + 54y^2$

293)  $(2a + 8b)(15a - 12b)$

$30a^2 + 96ab - 96b^2$

295)  $(20x - 4y)(12x + 2y)$

$240x^2 - 8xy - 8y^2$

297)  $(18x + 13y)(19x + 5y)$

$342x^2 + 337xy + 65y^2$

299)  $(7m - 8n)(9m - 12n)$

$63m^2 - 156mn + 96n^2$

301)  $(18x - 16y)(49x + 27y)$

$882x^2 - 298xy - 432y^2$

303)  $(44x + 15y)(5x - 49y)$

$220x^2 - 2081xy - 735y^2$

278)  $(3x - 8y)(7x - 17y)$

$21x^2 - 107xy + 136y^2$

280)  $(5a + 20b)(4a + 4b)$

$20a^2 + 100ab + 80b^2$

282)  $(12a + 12b)(17a - 2b)$

$204a^2 + 180ab - 24b^2$

284)  $(11m - 13n)(11m + n)$

$121m^2 - 132mn - 13n^2$

286)  $(13x - 16y)(3x + 2y)$

$39x^2 - 22xy - 32y^2$

288)  $(19x - 17y)(8x + 19y)$

$152x^2 + 225xy - 323y^2$

290)  $(12u - 8v)(7u - 16v)$

$84u^2 - 248uv + 128v^2$

292)  $(17u + 10v)(8u - 13v)$

$136u^2 - 141uv - 130v^2$

294)  $(14x - 12y)(4x + 5y)$

$56x^2 + 22xy - 60y^2$

296)  $(16a + 17b)(a - 15b)$

$16a^2 - 223ab - 255b^2$

298)  $(m - 16n)(m - 18n)$

$m^2 - 34mn + 288n^2$

300)  $(4x + 5y)(12x + 8y)$

$48x^2 + 92xy + 40y^2$

302)  $(5x - 29y)(40x + 39y)$

$200x^2 - 965xy - 1131y^2$

304)  $(44u + 46v)(38u + 33v)$

$1672u^2 + 3200uv + 1518v^2$

305)  $(5x + 2y)(22x + 20y)$

$110x^2 + 144xy + 40y^2$

306)  $(31x + 33y)(29x + 45y)$

$899x^2 + 2352xy + 1485y^2$

307)  $(43u - 23v)(46u + 14v)$

$1978u^2 - 456uv - 322v^2$

308)  $(18a + 8b)(27a + 39b)$

$486a^2 + 918ab + 312b^2$

309)  $(31x - 36y)(11x + 27y)$

$341x^2 + 441xy - 972y^2$

310)  $(31x - 5y)(19x - 49y)$

$589x^2 - 1614xy + 245y^2$

311)  $(18a + 39b)(35a + 20b)$

$630a^2 + 1725ab + 780b^2$

312)  $(6x - 18y)(50x + 3y)$

$300x^2 - 882xy - 54y^2$

313)  $(18m - 30n)(17m + 45n)$

$306m^2 + 300mn - 1350n^2$

314)  $(5x + 14y)(8x + 14y)$

$40x^2 + 182xy + 196y^2$

315)  $(44x + 32y)(32x + 8y)$

$1408x^2 + 1376xy + 256y^2$

316)  $(5x + 45y)(41x + 39y)$

$205x^2 + 2040xy + 1755y^2$

317)  $(44m + n)(24m + 27n)$

$1056m^2 + 1212mn + 27n^2$

318)  $(31x - 25y)(48x + 20y)$

$1488x^2 - 580xy - 500y^2$

319)  $(43x - 37y)(14x + 33y)$

$602x^2 + 901xy - 1221y^2$

320)  $(31u + 7v)(30u + 2v)$

$930u^2 + 272uv + 14v^2$

321)  $(18x - 6y)(21x + 14y)$

$378x^2 + 126xy - 84y^2$

322)  $(18x - 19y)(3x - 5y)$

$54x^2 - 147xy + 95y^2$

323)  $(5a - 32b)(19a + 8b)$

$95a^2 - 568ab - 256b^2$

324)  $(18x + 13y)(10x + 20y)$

$180x^2 + 490xy + 260y^2$

325)  $(31u + 38v)(37u + 27v)$

$1147u^2 + 2243uv + 1026v^2$

326)  $(5a + 7b)(20a - 11b)$

$100a^2 + 85ab - 77b^2$

327)  $(44x + 44y)(43x + 2y)$

$1892x^2 + 1980xy + 88y^2$

328)  $(5m + 31n)(8m + 14n)$

$40m^2 + 318mn + 434n^2$

329)  $(43x - 26y)(32x + 9y)$

$1376x^2 - 445xy - 234y^2$

330)  $(31m - 39n)(16m - 5n)$

$496m^2 - 779mn + 195n^2$

331)  $(18x + 37y)(40x - 11y)$

$720x^2 + 1282xy - 407y^2$

332)  $(31x - 7y)(24x + 20y)$

$744x^2 + 452xy - 140y^2$

$$333) (43x + 6y)(32x + 8y) \\ 1376x^2 + 536xy + 48y^2$$

$$335) (5x + 12y)(13x - 17y) \\ 65x^2 + 71xy - 204y^2$$

$$337) (30x - 20y)(5x + 2y) \\ 150x^2 - 40xy - 40y^2$$

$$339) (43a + 30b)(11a - 24b) \\ 473a^2 - 702ab - 720b^2$$

$$341) (43a - 40b)(18a + 2b) \\ 774a^2 - 634ab - 80b^2$$

$$343) (31x + 36y)(42x - 5y) \\ 1302x^2 + 1357xy - 180y^2$$

$$345) (18m - 21n)(8m + 8n) \\ 144m^2 - 24mn - 168n^2$$

$$347) (18x + 10y)(15x - 11y) \\ 270x^2 - 48xy - 110y^2$$

$$349) (5x - 2y)(32x + 2y) \\ 160x^2 - 54xy - 4y^2$$

$$351) (5u - 41v)(21u - 36v) \\ 105u^2 - 1041uv + 1476v^2$$

$$353) (43x + 3y)(37x - 24y) \\ 1591x^2 - 921xy - 72y^2$$

$$355) (43x + 35y)(45x - 42y) \\ 1935x^2 - 231xy - 1470y^2$$

$$357) (18x - 35y)(26x - 17y) \\ 468x^2 - 1216xy + 595y^2$$

$$359) (5m + 41n)(50m - 24n) \\ 250m^2 + 1930mn - 984n^2$$

$$334) (18u - 33v)(22u + 14v) \\ 396u^2 - 474uv - 462v^2$$

$$336) (18u - v)(29u - 5v) \\ 522u^2 - 119uv + 5v^2$$

$$338) (5x + 43y)(45x + 8y) \\ 225x^2 + 1975xy + 344y^2$$

$$340) (5x - 27y)(2x - 11y) \\ 10x^2 - 109xy + 297y^2$$

$$342) (43m - 8n)(27m - 4n) \\ 1161m^2 - 388mn + 32n^2$$

$$344) (30x - 34y)(24x - 24y) \\ 720x^2 - 1536xy + 816y^2$$

$$346) (31x + 5y)(35x - 30y) \\ 1085x^2 - 755xy - 150y^2$$

$$348) (18x + 42y)(48x - 30y) \\ 864x^2 + 1476xy - 1260y^2$$

$$350) (5u + 29v)(13u - 17v) \\ 65u^2 + 292uv - 493v^2$$

$$352) (43x - 28y)(5x - 5y) \\ 215x^2 - 355xy + 140y^2$$

$$354) (31a - 9b)(2a - 11b) \\ 62a^2 - 359ab + 99b^2$$

$$356) (30a - 22b)(10a - 30b) \\ 300a^2 - 1120ab + 660b^2$$

$$358) (18x - 4y)(34x - 36y) \\ 612x^2 - 784xy + 144y^2$$

$$360) (30m + 9n)(43m - 49n) \\ 1290m^2 - 1083mn - 441n^2$$

$$361) (17x + 28y)(16x - 11y) \\ 272x^2 + 261xy - 308y^2$$

$$363) (43u - 11v)(5u - 49v) \\ 215u^2 - 2162uv + 539v^2$$

$$365) (30x + 34y)(47x - 36y) \\ 1410x^2 + 518xy - 1224y^2$$

$$367) (30x - 36y)(29x + 46y) \\ 870x^2 + 336xy - 1656y^2$$

$$369) (5x - 5y)(37x - 30y) \\ 185x^2 - 335xy + 150y^2$$

$$371) (17a + 40b)(2a + 40b) \\ 34a^2 + 760ab + 1600b^2$$

$$373) (43m - 30n)(34m - 36n) \\ 1462m^2 - 2568mn + 1080n^2$$

$$375) (31x - 12y)(7x - 42y) \\ 217x^2 - 1386xy + 504y^2$$

$$377) (43x + 33y)(24x + 27y) \\ 1032x^2 + 1953xy + 891y^2$$

$$379) (18x - 37y)(31x - 49y) \\ 558x^2 - 2029xy + 1813y^2$$

$$381) (18x - 6y)(39x + 34y) \\ 702x^2 + 378xy - 204y^2$$

$$383) (5u + 38v)(4u + 46v) \\ 20u^2 + 382uv + 1748v^2$$

$$385) (5a - 31b)(37a + 27b) \\ 185a^2 - 1012ab - 837b^2$$

$$387) (43x - 13y)(10x + 21y) \\ 430x^2 + 773xy - 273y^2$$

$$362) (5x - 29y)(32x - 42y) \\ 160x^2 - 1138xy + 1218y^2$$

$$364) (43x - 42y)(23x - 30y) \\ 989x^2 - 2256xy + 1260y^2$$

$$366) (31x + 2y)(40x - 17y) \\ 1240x^2 - 447xy - 34y^2$$

$$368) (18a + 8b)(45a - 42b) \\ 810a^2 - 396ab - 336b^2$$

$$370) (18u - 23v)(13u - 23v) \\ 234u^2 - 713uv + 529v^2$$

$$372) (5x + 27y)(18x - 49y) \\ 90x^2 + 241xy - 1323y^2$$

$$374) (43m + n)(42m + 46n) \\ 1806m^2 + 2020mn + 46n^2$$

$$376) (5x - 43y)(26x + 34y) \\ 130x^2 - 948xy - 1462y^2$$

$$378) (30x - 24y)(15x + 40y) \\ 450x^2 + 840xy - 960y^2$$

$$380) (30u + 7v)(48u - 36v) \\ 1440u^2 - 744uv - 252v^2$$

$$382) (17x + 26y)(21x - 42y) \\ 357x^2 - 168xy - 1092y^2$$

$$384) (43x - 44y)(28x + 40y) \\ 1204x^2 + 488xy - 1760y^2$$

$$386) (5a - 6b)(25a + 12b) \\ 125a^2 - 90ab - 72b^2$$

$$388) (30m + 31n)(26m + 34n) \\ 780m^2 + 1826mn + 1054n^2$$

$$389) (43x - 25y)(17x + 46y)$$

$$731x^2 + 1553xy - 1150y^2$$

$$391) (30x - 7y)(15x + 40y)$$

$$450x^2 + 1095xy - 280y^2$$

$$393) (30m - 38n)(34m + 15n)$$

$$1020m^2 - 842mn - 570n^2$$

$$395) (5x - 45y)(31x + 2y)$$

$$155x^2 - 1385xy - 90y^2$$

$$397) (43u - v)(47u + 15v)$$

$$2021u^2 + 598uv - 15v^2$$

$$399) (30x - 27y)(20x + 8y)$$

$$600x^2 - 300xy - 216y^2$$

$$401) (35a + 9b)(40a - 34b)$$

$$1400a^2 - 830ab - 306b^2$$

$$403) (17x - 76y)(28x - 49y)$$

$$476x^2 - 2961xy + 3724y^2$$

$$405) (18m - 46n)(3m + 88n)$$

$$54m^2 + 1446mn - 4048n^2$$

$$407) (84x - 9y)(80x + 58y)$$

$$6720x^2 + 4152xy - 522y^2$$

$$409) (100x + 46y)(73x - 65y)$$

$$7300x^2 - 3142xy - 2990y^2$$

$$411) (66u - 93v)(68u + 42v)$$

$$4488u^2 - 3552uv - 3906v^2$$

$$413) (65x + 78y)(49x - 95y)$$

$$3185x^2 - 2353xy - 7410y^2$$

$$415) (48x + 23y)(56x + 32y)$$

$$2688x^2 + 2824xy + 736y^2$$

$$390) (18x + 6y)(50x + 27y)$$

$$900x^2 + 786xy + 162y^2$$

$$392) (17u + 37v)(7u + 8v)$$

$$119u^2 + 395uv + 296v^2$$

$$394) (5x + 24y)(23x + 21y)$$

$$115x^2 + 657xy + 504y^2$$

$$396) (17u - 32v)(39u + 34v)$$

$$663u^2 - 670uv - 1088v^2$$

$$398) (4x - 14y)(12x + 27y)$$

$$48x^2 - 60xy - 378y^2$$

$$400) (43a + 30b)(29a + 40b)$$

$$1247a^2 + 2590ab + 1200b^2$$

$$402) (77x - 21y)(22x + 30y)$$

$$1694x^2 + 1848xy - 630y^2$$

$$404) (59m + 100n)(9m + 14n)$$

$$531m^2 + 1726mn + 1400n^2$$

$$406) (x + 71y)(92x + 73y)$$

$$92x^2 + 6605xy + 5183y^2$$

$$408) (42u + 16v)(98u - v)$$

$$4116u^2 + 1526uv - 16v^2$$

$$410) (82u - 39v)(61u - 80v)$$

$$5002u^2 - 8939uv + 3120v^2$$

$$412) (24x - 69y)(86x - 16y)$$

$$2064x^2 - 6318xy + 1104y^2$$

$$414) (6a + 53b)(30a - 31b)$$

$$180a^2 + 1404ab - 1643b^2$$

$$416) (47a - 2b)(37a + 91b)$$

$$1739a^2 + 4203ab - 182b^2$$

$$417) (89x - 32y)(18x - 47y) \\ 1602x^2 - 4759xy + 1504y^2$$

$$418) (29x - 86y)(25x + 75y) \\ 725x^2 + 25xy - 6450y^2$$

$$419) (31m - 56n)(65m - 20n) \\ 2015m^2 - 4260mn + 1120n^2$$

$$420) (71m + 90n)(6m - 62n) \\ 426m^2 - 3862mn - 5580n^2$$

$$421) (13x + 60y)(89x + 2y) \\ 1157x^2 + 5366xy + 120y^2$$

$$422) (11x + 30y)(70x + 60y) \\ 770x^2 + 2760xy + 1800y^2$$

$$423) (96x - 24y)(76x - 14y) \\ 7296x^2 - 3168xy + 336y^2$$

$$424) (54u + 5v)(95u - 77v) \\ 5130u^2 - 3683uv - 385v^2$$

$$425) (94u - 49v)(58u + 45v) \\ 5452u^2 + 1388uv - 2205v^2$$

$$426) (20x + 67y)(46x + 30y) \\ 920x^2 + 3682xy + 2010y^2$$

$$427) (36x - 79y)(39x - 93y) \\ 1404x^2 - 6429xy + 7347y^2$$

$$428) (18a + 42b)(27a + 93b) \\ 486a^2 + 2808ab + 3906b^2$$

$$429) (78u + 97v)(64u - 29v) \\ 4992u^2 + 3946uv - 2813v^2$$

$$430) (60x + 13y)(52x - 44y) \\ 3120x^2 - 1964xy - 572y^2$$

$$431) (2a - 12b)(34a + 14b) \\ 68a^2 - 380ab - 168b^2$$

$$432) (77x - 19y)(21x + 72y) \\ 1617x^2 + 5145xy - 1368y^2$$

$$433) (43m - 72n)(97m - 60n) \\ 4171m^2 - 9564mn + 4320n^2$$

$$434) (25x + 50y)(85x - 75y) \\ 2125x^2 + 2375xy - 3750y^2$$

$$435) (85x - 97y)(22x + 4y) \\ 1870x^2 - 1794xy - 388y^2$$

$$436) (83m + 74n)(3m + 63n) \\ 249m^2 + 5451mn + 4662n^2$$

$$437) (66u - 5v)(92u + 47v) \\ 6072u^2 + 2642uv - 235v^2$$

$$438) (7x - 35y)(73x - 90y) \\ 511x^2 - 3185xy + 3150y^2$$

$$439) (67x + 20y)(67x - 11y) \\ 4489x^2 + 603xy - 220y^2$$

$$440) (50u - 60v)(54u - 27v) \\ 2700u^2 - 4590uv + 1620v^2$$

$$441) (48x - 89y)(36x + 32y) \\ 1728x^2 - 1668xy - 2848y^2$$

$$442) (32x + 57y)(42x - 42y) \\ 1344x^2 + 1050xy - 2394y^2$$

$$443) (30a + 27b)(24a + 17b) \\ 720a^2 + 1158ab + 459b^2$$

$$444) (90u + 87v)(61u + 96v) \\ 5490u^2 + 13947uv + 8352v^2$$

445)  $(73x + 2y)(49x + 80y)$

$3577x^2 + 5938xy + 160y^2$

446)  $(14a - 28b)(30a - 57b)$

$420a^2 - 1638ab + 1596b^2$

447)  $(55m - 82n)(94m + 65n)$

$5170m^2 - 4133mn - 5330n^2$

448)  $(12x - 52y)(12x + y)$

$144x^2 - 612xy - 52y^2$

449)  $(97x + 94y)(18x - 72y)$

$1746x^2 - 5292xy - 6768y^2$

450)  $(37x + 39y)(82x + 50y)$

$3034x^2 + 5048xy + 1950y^2$

451)  $(79x + 9y)(63x - 88y)$

$4977x^2 - 6385xy - 792y^2$

452)  $(96m + 64n)(84m - 9n)$

$8064m^2 + 4512mn - 576n^2$

453)  $(78u - 15v)(89u - 24v)$

$6942u^2 - 3207uv + 360v^2$

454)  $(19x - 45y)(70x + 34y)$

$1330x^2 - 2504xy - 1530y^2$

455)  $(62u - 75v)(51u + 98v)$

$3162u^2 + 2251uv - 7350v^2$

456)  $(60x - 100y)(32x - 39y)$

$1920x^2 - 5540xy + 3900y^2$

457)  $(a + 71b)(58a + 19b)$

$58a^2 + 4137ab + 1349b^2$

458)  $(44x + 46y)(39x + 83y)$

$1716x^2 + 5446xy + 3818y^2$

459)  $(42a + 17b)(20a - 55b)$

$840a^2 - 1970ab - 935b^2$

460)  $(85x - 8y)(46x + 4y)$

$3910x^2 - 28xy - 32y^2$

461)  $(26a - 38b)(27a + 68b)$

$702a^2 + 742ab - 2584b^2$

462)  $(24x - 63y)(8x - 70y)$

$192x^2 - 2184xy + 4410y^2$

463)  $(8x + 83y)(15x + 52y)$

$120x^2 + 1661xy + 4316y^2$

464)  $(67m - 93n)(91m - 11n)$

$6097m^2 - 9200mn + 1023n^2$

465)  $(7m + 54n)(97m - 85n)$

$679m^2 + 4643mn - 4590n^2$

466)  $(92x - y)(60x + 37y)$

$5520x^2 + 3344xy - 37y^2$

467)  $(49x + 24y)(79x - 27y)$

$3871x^2 + 573xy - 648y^2$

468)  $(90u - 31v)(85u - 100v)$

$7650u^2 - 11635uv + 3100v^2$

469)  $(31x - 56y)(67x - 37y)$

$2077x^2 - 4899xy + 2072y^2$

470)  $(72x + 91y)(29x + 85y)$

$2088x^2 + 8759xy + 7735y^2$

471)  $(56x + 36y)(36x + 6y)$

$2016x^2 + 1632xy + 216y^2$

472)  $(74u - 86v)(48u + 22v)$

$3552u^2 - 2500uv - 1892v^2$

$$473) (14a + 61b)(55a - 52b)$$

$$770a^2 + 2627ab - 3172b^2$$

$$475) (97x - 19y)(42x - 67y)$$

$$4074x^2 - 7297xy + 1273y^2$$

$$477) (38a - 48b)(24a - 9b)$$

$$912a^2 - 1494ab + 432b^2$$

$$479) (20x + 68y)(12x - 24y)$$

$$240x^2 + 336xy - 1632y^2$$

$$481) (61x + 13y)(75x - 98y)$$

$$4575x^2 - 5003xy - 1274y^2$$

$$483) (3x - 11y)(57x - 39y)$$

$$171x^2 - 744xy + 429y^2$$

$$485) (43x - 66y)(63x + 88y)$$

$$2709x^2 - 374xy - 5808y^2$$

$$487) (26a + 50b)(51a + 72b)$$

$$1326a^2 + 4422ab + 3600b^2$$

$$489) (9a - 4b)(14a - 6b)$$

$$126a^2 - 110ab + 24b^2$$

$$491) (91m + 87n)(84m + 42n)$$

$$7644m^2 + 11130mn + 3654n^2$$

$$493) (93x - 89y)(2x - 22y)$$

$$186x^2 - 2224xy + 1958y^2$$

$$495) (32x + 58y)(8x - 96y)$$

$$256x^2 - 2608xy - 5568y^2$$

$$497) (75m + 33n)(91m - 37n)$$

$$6825m^2 + 228mn - 1221n^2$$

$$499) (56x - 82y)(60x + 11y)$$

$$3360x^2 - 4304xy - 902y^2$$

$$474) (54a + 6b)(17a + 70b)$$

$$918a^2 + 3882ab + 420b^2$$

$$476) (37x - 78y)(5x + 55y)$$

$$185x^2 + 1645xy - 4290y^2$$

$$478) (79m + 98n)(87m - 83n)$$

$$6873m^2 + 1969mn - 8134n^2$$

$$480) (19m + 43n)(94m + 39n)$$

$$1786m^2 + 4783mn + 1677n^2$$

$$482) (u - 41v)(82u + 24v)$$

$$82u^2 - 3338uv - 984v^2$$

$$484) (86u - 96v)(45u - 55v)$$

$$3870u^2 - 9050uv + 5280v^2$$

$$486) (84x + 80y)(26x + 9y)$$

$$2184x^2 + 2836xy + 720y^2$$

$$488) (68x + 21y)(33x - 65y)$$

$$2244x^2 - 3727xy - 1365y^2$$

$$490) (8x - 34y)(39x + 57y)$$

$$312x^2 - 870xy - 1938y^2$$

$$492) (50a - 59b)(20a - 80b)$$

$$1000a^2 - 5180ab + 4720b^2$$

$$494) (73x + 3y)(72x + 27y)$$

$$5256x^2 + 2187xy + 81y^2$$

$$496) (15x - 22y)(53x + 90y)$$

$$795x^2 + 184xy - 1980y^2$$

$$498) (57u - 52v)(79u - 52v)$$

$$4503u^2 - 7072uv + 2704v^2$$

$$500) (98u + 95v)(41u + 75v)$$

$$4018u^2 + 11245uv + 7125v^2$$



$$501) (39x + 65y)(23x - 68y)$$

$$897x^2 - 1157xy - 4420y^2$$

$$503) (38a + 40b)(48a - 4b)$$

$$1824a^2 + 1768ab - 160b^2$$

$$505) (20x - 45y)(93x - 19y)$$

$$1860x^2 - 4565xy + 855y^2$$

$$507) (2m + 77n)(81m - 34n)$$

$$162m^2 + 6169mn - 2618n^2$$

$$509) (45x + 47y)(5x + 29y)$$

$$225x^2 + 1540xy + 1363y^2$$

$$511) (85x - 7y)(69x - 50y)$$

$$5865x^2 - 4733xy + 350y^2$$

$$513) (69u - 62v)(75u + 77v)$$

$$5175u^2 + 663uv - 4774v^2$$

$$515) (51x + 54y)(19x + 62y)$$

$$969x^2 + 4188xy + 3348y^2$$

$$517) (50a + 30b)(45a - 80b)$$

$$2250a^2 - 2650ab - 2400b^2$$

$$519) (92x + 17y)(15x + 40y)$$

$$1380x^2 + 3935xy + 680y^2$$

$$521) (34a - 25b)(7a + 47b)$$

$$238a^2 + 1423ab - 1175b^2$$

$$523) (14m + 62n)(78m + 95n)$$

$$1092m^2 + 6166mn + 5890n^2$$

$$525) (99m + 7n)(84m + 16n)$$

$$8316m^2 + 2172mn + 112n^2$$

$$527) (81u - 73v)(72u + v)$$

$$5832u^2 - 5175uv - 73v^2$$

$$502) (80x + 10y)(29x + 60y)$$

$$2320x^2 + 5090xy + 600y^2$$

$$504) (22a - 15b)(11a - 83b)$$

$$242a^2 - 1991ab + 1245b^2$$

$$506) (62a - 69b)(17a + 44b)$$

$$1054a^2 + 1555ab - 3036b^2$$

$$508) (4x - 99y)(99x - 93y)$$

$$396x^2 - 10173xy + 9207y^2$$

$$510) (87m + 17n)(87m + 93n)$$

$$7569m^2 + 9570mn + 1581n^2$$

$$512) (27x - 37y)(50x + 14y)$$

$$1350x^2 - 1472xy - 518y^2$$

$$514) (9u + 84v)(38u - v)$$

$$342u^2 + 3183uv - 84v^2$$

$$516) (68x - 92y)(57x - 65y)$$

$$3876x^2 - 9664xy + 5980y^2$$

$$518) (32x - 55y)(90x - 96y)$$

$$2880x^2 - 8022xy + 5280y^2$$

$$520) (74m - 85n)(14m - 32n)$$

$$1036m^2 - 3558mn + 2720n^2$$

$$522) (16x + 91y)(96x + 32y)$$

$$1536x^2 + 9248xy + 2912y^2$$

$$524) (57x + 37y)(2x - 47y)$$

$$114x^2 - 2605xy - 1739y^2$$

$$526) (39x - 48y)(47x - 63y)$$

$$1833x^2 - 4713xy + 3024y^2$$

$$528) (80x + 99y)(53x + 65y)$$

$$4240x^2 + 10447xy + 6435y^2$$

$$529) (97x - 18y)(65x + 80y) \\ 6305x^2 + 6590xy - 1440y^2$$

$$531) (21u + 74v)(35u - 78v) \\ 735u^2 + 952uv - 5772v^2$$

$$533) (3x - 11y)(23x - 93y) \\ 69x^2 - 532xy + 1023y^2$$

$$535) (87m - 95n)(11m + 93n) \\ 957m^2 + 7046mn - 8835n^2$$

$$537) (28x + 81y)(93x - 45y) \\ 2604x^2 + 6273xy - 3645y^2$$

$$539) (10m - 4n)(81m - 60n) \\ 810m^2 - 924mn + 240n^2$$

$$541) (69x + 26y)(100x + 77y) \\ 6900x^2 + 7913xy + 2002y^2$$

$$543) (93u - 88v)(69u - 75v) \\ 6417u^2 - 13047uv + 6600v^2$$

$$545) (76x + 34y)(13x - 91y) \\ 988x^2 - 6474xy - 3094y^2$$

$$547) (33u + 58v)(31u + 52v) \\ 1023u^2 + 3514uv + 3016v^2$$

$$549) (58a - 51b)(a + 95b) \\ 58a^2 + 5459ab - 4845b^2$$

$$551) (99m + 95n)(7m + 21n) \\ 693m^2 + 2744mn + 1995n^2$$

$$553) (82m + 41n)(71m - 58n) \\ 5822m^2 - 1845mn - 2378n^2$$

$$555) (22m - 14n)(78m + 65n) \\ 1716m^2 + 338mn - 910n^2$$

$$530) (64x + 44y)(16x - 14y) \\ 1024x^2 - 192xy - 616y^2$$

$$532) (62a + 14b)(41a + 49b) \\ 2542a^2 + 3612ab + 686b^2$$

$$534) (44x - 65y)(86x + 34y) \\ 3784x^2 - 4094xy - 2210y^2$$

$$536) (46a - 41b)(4a - 30b) \\ 184a^2 - 1544ab + 1230b^2$$

$$538) (26m + 51n)(74m + 19n) \\ 1924m^2 + 4268mn + 969n^2$$

$$540) (9x - 28y)(62x + 3y) \\ 558x^2 - 1709xy - 84y^2$$

$$542) (51x - 58y)(43x + 67y) \\ 2193x^2 + 923xy - 3886y^2$$

$$544) (92x + 88y)(50x - 12y) \\ 4600x^2 + 3296xy - 1056y^2$$

$$546) (15x - 21y)(19x + 36y) \\ 285x^2 + 141xy - 756y^2$$

$$548) (74a + 4b)(38a - 27b) \\ 2812a^2 - 1846ab - 108b^2$$

$$550) (56x - 76y)(83x - 42y) \\ 4648x^2 - 8660xy + 3192y^2$$

$$552) (40x + 71y)(90x + 80y) \\ 3600x^2 + 9590xy + 5680y^2$$

$$554) (81x + 11y)(96x + 6y) \\ 7776x^2 + 1542xy + 66y^2$$

$$556) (65x - 44y)(59x - 73y) \\ 3835x^2 - 7341xy + 3212y^2$$

557)  $(63x - 69y)(40x - 9y)$

$2520x^2 - 3327xy + 621y^2$

558)  $(47x + 78y)(47x - 88y)$

$2209x^2 - 470xy - 6864y^2$

559)  $(4u - 98v)(65u + 49v)$

$260u^2 - 6174uv - 4802v^2$

560)  $(45u + 48v)(28u - 25v)$

$1260u^2 + 219uv - 1200v^2$

561)  $(88x + 23y)(9x + 39y)$

$792x^2 + 3639xy + 897y^2$

562)  $(28x - 32y)(16x - 40y)$

$448x^2 - 1632xy + 1280y^2$

563)  $(29a - 7b)(35a + 98b)$

$1015a^2 + 2597ab - 686b^2$

564)  $(70a - 61b)(98a + 24b)$

$6860a^2 - 4298ab - 1464b^2$

565)  $(11x - 91y)(80x + 82y)$

$880x^2 - 6378xy - 7462y^2$

566)  $(10m + 85n)(4m - 55n)$

$40m^2 - 210mn - 4675n^2$

567)  $(52x + 55y)(86x + 8y)$

$4472x^2 + 5146xy + 440y^2$

568)  $(93x - 49y)(54x + 78y)$

$5022x^2 + 4608xy - 3822y^2$

569)  $(34x - 24y)(74x - 7y)$

$2516x^2 - 2014xy + 168y^2$

570)  $(77x - 54y)(56x + 52y)$

$4312x^2 + 980xy - 2808y^2$

571)  $(75x - 79y)(37x - 86y)$

$2775x^2 - 9373xy + 6794y^2$

572)  $(95m + 30n)(68m + 67n)$

$6460m^2 + 8405mn + 2010n^2$

573)  $(17u + 92v)(62u - 22v)$

$1054u^2 + 5330uv - 2024v^2$

574)  $(59x + 67y)(44x + 36y)$

$2596x^2 + 5072xy + 2412y^2$

575)  $(100x + 8y)(6x - 37y)$

$600x^2 - 3652xy - 296y^2$

576)  $(57u + 37v)(25u + 100v)$

$1425u^2 + 6625uv + 3700v^2$

577)  $(41a - 17b)(31a + 26b)$

$1271a^2 + 539ab - 442b^2$

578)  $(82a - 72b)(95a - 53b)$

$7790a^2 - 11186ab + 3816b^2$

579)  $(23x + 99y)(76x + 11y)$

$1748x^2 + 7777xy + 1089y^2$

580)  $(40x - 47y)(13x + 85y)$

$520x^2 + 2789xy - 3995y^2$

581)  $(22m + 75n)(m + 69n)$

$22m^2 + 1593mn + 5175n^2$

582)  $(6m + 20n)(64m - 4n)$

$384m^2 + 1256mn - 80n^2$

583)  $(64x + 45y)(83x - 68y)$

$5312x^2 - 617xy - 3060y^2$

584)  $(4x - 10y)(46x + 54y)$

$184x^2 - 244xy - 540y^2$

$$585) (46x - 35y)(71x - 83y) \\ 3266x^2 - 6303xy + 2905y^2$$

$$587) (29u + 82v)(59u - 99v) \\ 1711u^2 + 1967uv - 8118v^2$$

$$589) (69u + 27v)(22u + 24v) \\ 1518u^2 + 2250uv + 648v^2$$

$$591) (71x + 52y)(40x - 35y) \\ 2840x^2 - 405xy - 1820y^2$$

$$593) (53a - 28b)(28a - 50b) \\ 1484a^2 - 3434ab + 1400b^2$$

$$595) (36x + 89y)(73x - 66y) \\ 2628x^2 + 4121xy - 5874y^2$$

$$597) (76x + 34y)(80x + 57y) \\ 6080x^2 + 7052xy + 1938y^2$$

$$599) (59x - 50y)(68x + 41y) \\ 4012x^2 - 981xy - 2050y^2$$

$$586) (87x - 94y)(34x + 39y) \\ 2958x^2 + 197xy - 3666y^2$$

$$588) (89x - 65y)(52x - 20y) \\ 4628x^2 - 5160xy + 1300y^2$$

$$590) (11x - 3y)(3x + 87y) \\ 33x^2 + 948xy - 261y^2$$

$$592) (52x - 57y)(9x + 8y) \\ 468x^2 - 97xy - 456y^2$$

$$594) (94a - 82b)(92a + 72b) \\ 8648a^2 - 776ab - 5904b^2$$

$$596) (34m + 64n)(98m - 2n) \\ 3332m^2 + 6204mn - 128n^2$$

$$598) (18m + 4n)(61m - 81n) \\ 1098m^2 - 1214mn - 324n^2$$

$$600) (16x - 20y)(42x - 17y) \\ 672x^2 - 1112xy + 340y^2$$