

Polynomials - two variables - fractions

Simplify each sum.

1) $\left(y - 1\frac{1}{4}x^4\right) + \left(\frac{5}{6}x^4 - 3\frac{4}{7}y\right)$

2) $\left(\frac{1}{2}xy^4 + 1\frac{1}{2}y\right) + \left(\frac{1}{3}xy^4 + 2\frac{2}{3}y\right)$

3) $\left(8a^3b^4 - 5b^2\right) + \left(\frac{1}{5}a^3b^4 - 2\frac{7}{8}b^2\right)$

4) $\left(1\frac{1}{3}m^3n^2 + \frac{1}{3}m^3\right) + \left(1\frac{4}{7}m^3n^2 + \frac{1}{2}m^3\right)$

5) $\left(2\frac{3}{8} - x^4y^2\right) + \left(3\frac{1}{3}x^4y^2 - 2\frac{4}{5}\right)$

6) $\left(3\frac{5}{6}xy - 3\frac{1}{3}x^4y^3\right) + \left(1\frac{1}{7}x^4y^3 - 1\frac{4}{5}xy\right)$

$$7) \left(1\frac{1}{4}u^3v - 1\frac{1}{3}u^4v^4 \right) + \left(1\frac{1}{6}u^4v^4 + \frac{5}{6}u^3v \right)$$

$$8) \left(4\frac{3}{7}a^3b^4 + 1\frac{1}{6}a^2b^2 \right) + \left(\frac{1}{3}a^2b^2 - 3\frac{6}{7}a^3b^4 \right)$$

$$9) \left(8\frac{1}{4}n - 2\frac{1}{3}m^4 \right) + \left(1\frac{3}{4}n + 4\frac{2}{5}m^4 \right)$$

$$10) \left(4\frac{1}{2}x^3y^3 + 3\frac{1}{5} \right) + \left(1\frac{5}{7} + 3\frac{1}{2}x^3y^3 \right)$$

$$11) \left(\frac{5}{6}x^3y + \frac{2}{3}x^3y^3 \right) + \left(4\frac{7}{8}x^3y + 1\frac{7}{8}x^3y^3 \right)$$

$$12) \left(\frac{1}{2}x^2y^4 + \frac{3}{4}x^4y^3 \right) + \left(4\frac{2}{3}x^2y^4 - 3\frac{2}{3}x^4y^3 \right)$$

$$13) \left(\frac{3}{7}x^2 + xy^2 \right) + \left(1\frac{1}{6}xy^2 + x^2 \right)$$

$$14) \left(\frac{1}{5}x^2y^2 + 2\frac{1}{2}x^3y^4 \right) + \left(6x^3y^4 - 2\frac{1}{2}x^2y^2 \right)$$

$$15) \left(\frac{3}{4}x^4y - \frac{3}{4}x \right) + \left(3\frac{3}{5}x + \frac{1}{2}x^4y \right)$$

$$16) \left(ab^4 + 1\frac{3}{4}ab^3 \right) + \left(\frac{2}{3}ab^3 - 8ab^4 \right)$$

$$17) \left(6x^2y + \frac{1}{4}x^3y^2 \right) + \left(2\frac{7}{8}x^2y - 2\frac{1}{2}x^3y^2 \right)$$

$$18) (2m^3n^3 + 2n^2) + (3n^2 - 2m^3n^3)$$

$$19) \left(3\frac{1}{2}xy^4 - 1\frac{3}{8}y \right) + \left(1\frac{5}{8}y - 1\frac{6}{7}xy^4 \right)$$

$$20) \left(\frac{1}{4}a^2b^2 - 2a^4b^2 \right) + \left(a^2b^2 + \frac{5}{6}a^4b^2 \right)$$

$$21) \left(2\frac{1}{6}xy^3 + 1\frac{2}{3}x^2y^2 \right) + \left(1\frac{1}{4}x^2y^2 + 3\frac{1}{6}xy^3 \right)$$

$$22) \left(1\frac{1}{2}x^4y^4 + \frac{1}{2}xy^2 \right) + \left(1\frac{1}{2}x^4y^4 + 1\frac{1}{6}x^3y^4 \right)$$

$$23) \left(4\frac{3}{5}y^4 + \frac{1}{4}y^3 \right) + (y^4 - 2x^2y^3)$$

$$24) (a^3b^2 + 2b^2) + \left(1\frac{1}{2}b^2 + 3\frac{2}{3}a^3b^2 \right)$$

$$25) \left(2\frac{5}{6}y^4 + 1\frac{3}{4}y^3 \right) + \left(2y^3 + 1\frac{2}{7}y^4 \right)$$

$$26) \left(a^3b^2 + 2\frac{1}{7}a^4b^2 \right) + \left(4a^2b^4 + 1\frac{1}{3}a^4b^2 \right)$$

$$27) \left(2\frac{3}{5}m^2 - \frac{1}{2}m^4 \right) + \left(1\frac{3}{7}m^2 - 2m^4 \right)$$

$$28) \left(2\frac{5}{8}u^2v^2 - 2\frac{3}{4}u^4v^2 \right) + \left(3\frac{2}{3}v^4 + 1\frac{1}{6}u^2v^2 \right)$$

$$29) \left(1\frac{2}{3}y^4 + 3\frac{1}{2}x^4 \right) + \left(3\frac{1}{4}y^4 + 1\frac{2}{3}x^4 \right)$$

$$30) \left(\frac{5}{8}x^4y^3 + 1\frac{3}{4}xy^4 \right) + \left(\frac{1}{2}xy^4 + 2x^4y \right)$$

Answers to Polynomials - two variables - fractions

- 1) $-\frac{5}{12}x^4 - 2\frac{4}{7}y$ 2) $\frac{5}{6}y^4x + 4\frac{1}{6}y$ 3) $8\frac{1}{5}b^4a^3 - 7\frac{7}{8}b^2$ 4) $2\frac{19}{21}m^3n^2 + \frac{5}{6}m^3$
- 5) $2\frac{1}{3}x^4y^2 - \frac{17}{40}$ 6) $-2\frac{4}{21}x^4y^3 + 2\frac{1}{30}xy$ 7) $-\frac{1}{6}u^4v^4 + 2\frac{1}{12}u^3v$
- 8) $\frac{4}{7}a^3b^4 + 1\frac{1}{2}a^2b^2$ 9) $2\frac{1}{15}m^4 + 10n$ 10) $8x^3y^3 + 4\frac{32}{35}$
- 11) $2\frac{13}{24}x^3y^3 + 5\frac{17}{24}x^3y$ 12) $-2\frac{11}{12}x^4y^3 + 5\frac{1}{6}x^2y^4$ 13) $2\frac{1}{6}xy^2 + 1\frac{3}{7}x^2$
- 14) $8\frac{1}{2}x^3y^4 - 2\frac{3}{10}x^2y^2$ 15) $1\frac{1}{4}x^4y + 2\frac{17}{20}x$ 16) $-7ab^4 + 2\frac{5}{12}ab^3$
- 17) $-2\frac{1}{4}x^3y^2 + 8\frac{7}{8}x^2y$ 18) $5n^2$ 19) $1\frac{9}{14}y^4x + \frac{1}{4}y$
- 20) $-1\frac{1}{6}a^4b^2 + 1\frac{1}{4}a^2b^2$ 21) $5\frac{1}{3}xy^3 + 2\frac{11}{12}x^2y^2$ 22) $3x^4y^4 + 1\frac{1}{6}x^3y^4 + \frac{1}{2}xy^2$
- 23) $-2y^3x^2 + 5\frac{3}{5}y^4 + \frac{1}{4}y^3$ 24) $4\frac{2}{3}b^2a^3 + 3\frac{1}{2}b^2$ 25) $4\frac{5}{42}y^4 + 3\frac{3}{4}y^3$
- 26) $3\frac{10}{21}a^4b^2 + 4a^2b^4 + a^3b^2$ 27) $-2\frac{1}{2}m^4 + 4\frac{1}{35}m^2$
- 28) $-2\frac{3}{4}v^2u^4 + 3\frac{19}{24}v^2u^2 + 3\frac{2}{3}v^4$ 29) $4\frac{11}{12}y^4 + 5\frac{1}{6}x^4$
- 30) $\frac{5}{8}x^4y^3 + 2\frac{1}{4}xy^4 + 2x^4y$