

Factorising, Algebraic Fraction and Formulae

- Section Test

1) The expression $2x^2y - xy + 2xy^2$ can be written in fully factorised form as

(a) $2xy(x - 1 + y)$

(b) $xy(2x - 1 + 2y)$

(c) $xy(x - 1 + y)$

(d) $x(xy - x - y + y^2)$

(e) I don't know

2) The expression $8x^2y^3 - 4x^3y^4 - 2x^2y$ can be written in fully factorised form as

(a) $2x^2y(4y^2 - 2xy^3 - 1)$

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

(c) $xy(8y^2 - 4xy^3 - 2)$

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

(e) I don't know

3) The expression $\frac{y^2 - 1}{y^2 - y - 2}$ can be simplified to

(a) $\frac{y+1}{y+2}$

(b) $\frac{y-1}{y-2}$

(c) $\frac{1}{y+2}$

(d) cannot be simplified

(e) I don't know

4) $\frac{2x}{3y^3} \times \frac{6y}{x^2 + 2x}$, expressed in its simplest form, is

(a) $\frac{2}{x^2y^2}$

(b) $\frac{4}{y^2(x+2)}$

(c) $\frac{4}{x^2}$

(d) $\frac{4}{x^2y^2 + 2}$

(e) I don't know

5) $\frac{x^2y}{2z} \div \frac{3xy^3}{10z^2}$, expressed in its simplest form, is

(a) $\frac{3x^3y^4}{20z^3}$

(b) $\frac{8xz}{3y^2}$

(c) $\frac{5xz}{3y^2}$

(d) $\frac{3y^2}{5xz}$

(e) I don't know

6) $\frac{5}{x+2} - \frac{3}{2x-1} =$

(a) $\frac{7x-7}{(x+2)(2x-1)}$

(b) $\frac{7x+1}{(x+2)(2x-1)}$

(c) $\frac{7x-11}{(x+2)(2x-1)}$

(d) $\frac{2}{(x+2)(2x-1)}$

(e) I don't know

7) Make b the subject of the formula $a = \frac{1}{3}(b-2)$.

(a) $b = 3a + 2$

(b) $b = 3a + \frac{2}{3}$

(c) $b = a + \frac{2}{3}$

(d) $b = \frac{a+2}{3}$

(e) I don't know

8) Make u the subject of the formula $s = \frac{1}{2}(u+v)t$.

(a) $u = 2\left(\frac{s-v}{t}\right)$

(b) $u = \frac{2s-v}{t}$

(c) $u = 2\left(\frac{s}{t} - v\right)$

(d) $u = \frac{2s}{t} - v$

(f) I don't know

9) Make x the subject of the formula $g = \frac{1}{\sqrt{a^2 - x^2}}$

(a) $x = \sqrt{\frac{1}{g^2} - a^2}$

(b) $x = \sqrt{\frac{a^2 - 1}{g^2}}$

(c) $x = \sqrt{a^2 - \frac{1}{g^2}}$

(d) $x = \sqrt{\frac{1 - a^2}{g^2}}$

(e) I don't know