

**Question:**

Simplify this expression:

$$5 - 3 ( x^2 + 2x - 5 ) + 3x^2$$

**Question:**

Simplify this expression:

$$8p^{-4} \div 4p^3$$

**Question:**

Factorise this expression completely:

$$2x^2 + 4x$$

**Question:**

Factorise this expression completely:

$$15y - 20yz^2$$

Factorise:

$$x^2 + 8x + 12$$

**Question:**

Factorise:

$$x^2 - 2x - 24$$

**Question:**

Factorise:

$$2x^2 + 7x - 15$$

**Question:**

Factorise:

$$x^2 - 4$$



**Question:**

Factorise:

$$36x^2 - 4$$

Simplify:

(a)  $x^3 \div x^{-2}$

(b)  $x^5 \div x^7$

(c)  $x^{\frac{3}{2}} \times x^{\frac{5}{2}}$

(d)  $(x^2)^{\frac{3}{2}}$

(e)  $(x^3)^{\frac{5}{3}}$

(f)  $3x^{0.5} \times 4x^{-0.5}$

(g)  $9x^{\frac{2}{3}} \div 3x^{\frac{1}{6}}$

(h)  $5x^{1\frac{2}{5}} \div x^{\frac{2}{5}}$

(i)  $3x^4 \times 2x^{-5}$

Evaluate:

(a)  $25^{\frac{1}{2}}$

(b)  $81^{\frac{1}{2}}$

(c)  $27^{\frac{1}{3}}$

(d)  $4^{-2}$

(e)  $9^{-\frac{1}{2}}$

(f)  $(-5)^{-3}$

(g)  $\left(\frac{3}{4}\right)^0$

(h)  $1296^{\frac{1}{4}}$

(i)  $\left(1\frac{9}{16}\right)^{\frac{3}{2}}$

(j)  $\left(\frac{27}{8}\right)^{\frac{2}{3}}$

(k)  $\left(\frac{6}{5}\right)^{-1}$

(l)  $\left(\frac{343}{512}\right)^{-\frac{2}{3}}$

**Question:**

Simplify:

$$\sqrt{28}$$

**Question:**

Simplify:

$$\frac{\sqrt{12}}{2}$$

**Question:**

Simplify:

$$\sqrt{175} + \sqrt{63} + 2\sqrt{28}$$

**Question:**

Rationalise the denominator:

$$\frac{1}{\sqrt{5}}$$

**Question:**

Rationalise the denominator:

$$\frac{4}{3 - \sqrt{5}}$$



**Question:**

Rationalise the denominator:

$$\frac{11}{3 + \sqrt{11}}$$

**Question:**

Rationalise the denominator:

$$\frac{\sqrt{2} - \sqrt{3}}{\sqrt{3} - \sqrt{2}}$$