

HAA4.1



1) Expand $(x - 3)^2(x + 4)$

2) r is directly proportional to s . When $r = 60$, $s = 5$.
Find the value of r when $s = 3$

3) Simplify $\frac{x^2+7x+6}{7x-2-6x+3}$

4) If $f(x) = 7 - 2x^2$, find the value of $f(3)$

5) Find the coordinates of the vertex of the graph
 $y = x^2 - 8x - 5$

HAA4.2



1) Find the equation of the line parallel to $2y + 4x = 7$ passing through the point $(4, 1)$

2) Simplify $\frac{2x+3}{3} + \frac{2x-5}{4}$

3) Sketch the graph of $y = -x^2$

4) A block has a volume of 20cm^3 , and a density of 4.5g/cm^3 . Calculate its mass

5) Rationalise the denominator

$$\frac{6\sqrt{3}}{\sqrt{3} - 2}$$

HAA4.4



1) Find the equation of the line parallel to $2y - 6x = 7$ passing through the point $(-2, 7)$

2) Simplify $\frac{3x+2}{4} - \frac{2x-3}{6}$

3) Sketch the graph of $y = x^2 + 4$

4) A block has a mass of 20g, and a density of 4g/cm^3 . Calculate its volume

5) Rationalise the denominator

$$\frac{2\sqrt{5}}{\sqrt{5} + 2}$$



1) Find the equation of the line parallel to $3y + 6x = 5$ passing through the point $(4, -3)$

2) Simplify $\frac{2x-5}{3} - \frac{2x-4}{6}$

3) Sketch the graph of $y = x^3$

4) A pressure of 24 N/m^2 results from a force of 12 N acting over an area $x \text{ m}^2$. Find x

5) Rationalise the denominator

$$\frac{6\sqrt{7}}{\sqrt{7} - 1}$$