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 $y = x^2 - 8x - 5$

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 20cm³, and a density of 4.5g/cm³. Calculate its mass

5) Rationalise the denominator

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

1) Expand $(x + 3)^3$

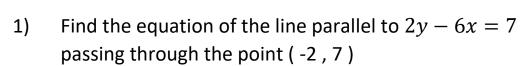


2) r is directly proportional to s. When r=40, s=5. Find the value of r when s=7

3) Simplify
$$\frac{x^2+7x+12}{2(x+3)-(x+2)}$$

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

5) Find the coordinates of the vertex of the graph $y = x^2 + 10x + 12$





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/cm³. Calculate its volume

5) Rationalise the denominator

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

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

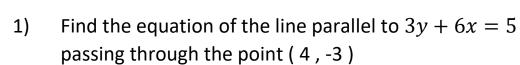


2) a is directly proportional to b. When a=5, b=10. Find the value of b when a=7

3) Simplify
$$\frac{x^2-25}{x+5}$$

4) If
$$f(x) = 3 - 2x^2$$
, find the value of $f(-5)$

5) Find the coordinates of the vertex of the graph $y = x^2 - 6x + 12$





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

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

4) A pressure of 24 N/m² results from a force of 12 N acting over an area x m². Find x

5) Rationalise the denominator

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