

## HA2.1

1) Expand and simplify  $(3x - 5)(7x - 4)$



2) Factorise fully  $8x + 20x^3$

3) Factorise  $x^2 - 2x - 8$

4) Work out  $33 \div 0.3$

5) Work out  $3\frac{1}{3} \times 2\frac{2}{5}$

## HA2.2

1) Make  $x$  the subject of  $y = ax^2 - 4$



2) Divide 400kg in the ratio 3 : 5

3) Work out the value of  $3x^2 + y$  when  $x = -2$  and  $y = 6$

4) The mean of 7, 12, 3,  $x$ , 11 is 9. Find  $x$

5) Solve  $\frac{x}{2} + 6 = 3x - 14$

HA2.3



- 1) Expand and simplify  $(4x + 5)(3x - 7)$
  - 2) Factorise fully  $8x^3 + 12x^2$
  - 3) Factorise  $x^2 - 9x + 20$
  - 4) Work out  $64 \div 0.5$
  - 5) Work out  $1\frac{1}{3} \div 2\frac{1}{6}$

## HA2.4



- 1) Make  $x$  the subject of  $y = \sqrt{ax - 4}$
- 2) Divide 450kg in the ratio 2 : 7
- 3) Work out the value of  $2x^2 - y$  when  $x = 3$  and  $y = -2$
- 4) The median of 7, 25,  $x$ , 7, 8 and 28 is 10. Find  $x$
- 5) Solve  $\frac{3x+7}{2} = 2x + 14$



- 1) Expand and simplify  $(3x - 5)(4x - 7)$
  - 2) Factorise fully  $6x^3 - 18x^4$
  - 3) Factorise  $x^2 - 3x - 18$
  - 4) Work out  $64 \div 0.4$
  - 5) Work out  $3\frac{1}{3} - 2\frac{5}{6}$

HA2.6



- 1) Make  $x$  the subject of  $y = \sqrt{ax} - b$
  - 2) Divide 440kg in the ratio 3 : 5
  - 3) Work out the value of  $3x^2 - 2y$  when  $x = -2$  and  $y = 3$
  - 4) The mean of 7, 15,  $x$ , 7, 8 and 18 is 10. Find  $x$
  - 5) Solve  $\frac{2x-1}{3} = 2x - 11$