



91.1

- 1) Work out  $\frac{3}{4} \div \frac{1}{6}$
  
  
  
  
  
  
  
  
  
  
- 2) Work out  $1.2 \times 2.89$
  
  
  
  
  
  
  
  
  
  
- 3) Evaluate  $3^0$
  
  
  
  
  
  
  
  
  
  
- 4) Expand  $4a(3 - 2a)$
  
  
  
  
  
  
  
  
  
  
- 5) Complete  $12\text{km/h} = ? \text{m/s}$

91.2



1) Find 35% of £460

2) Solve  $5x + 6 = 3x - 1$

3) Make  $x$  the subject of  $y = x^2 - b$

4) Find the  $n$ th term: 17, 23, 29, 35, ...

5) Work out  $6 \times 3 - (4 + 7)$

91.3



1) Work out  $\frac{5}{6} \div \frac{1}{2}$

2) Work out  $5.6 \times 0.97$

3) Evaluate  $4^3$

4) Expand  $3x(5 - 2x)$

5) Complete:  $10 \text{ m/s} = ? \text{ km/hr}$



91.4

1) Find 25% of £320

2) Solve  $2x + 5 = 6x - 1$

3) Make  $x$  the subject of  $ay = (x - b)^2$

4) Find the  $n$ th term: 7, 18, 29, 40, ...

5) Work out  $10 - 2 \times 2 + 3$



91.5



1) Work out  $\frac{1}{2} \times \frac{6}{7}$

2) Work out  $0.35 \times 6.7$

3) Evaluate  $5^0$

4) Expand  $6x(4x - 3)$

5) Complete: ? m/s = 18 km/hr





92.1

1) Expand and simplify  $(x - 3)(x + 2)$

2) Work out  $36.3 \times 10^3$

3) Distance = 8km, Time = 10 minutes,  
Speed = ? km/h

4) Work out  $2\frac{1}{4} \times \frac{2}{3}$

5) Express 130 as a product of prime factors

92.2



1) Solve  $\frac{9x+3}{2} = 5x - 4$

2) List the first 4 terms of a geometric sequence with a first term of 2 and a common ratio of 3

3) Divide £35 in the ratio 3 : 2

4) Decrease £3400 by 20%

5) Simplify  $(2x^2y)^3$



92.3

1) Expand and simplify  $(x - 6)(x - 2)$

2) Work out  $3684.3 \times 10^{-2}$

3) Distance = 12km, Time = 15 minutes,  
Speed = ? km/h

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

5) Express 98 as a product of prime factors

92.4



1) Solve  $\frac{4x-5}{3} = 2x - 7$

2) List the first 4 terms of a geometric sequence with a first term of 2 and a common ratio of 10

3) Divide £60 in the ratio 7 : 5

4) Increase £2800 by 20%

5) Simplify  $(3x^3y)^4$



92.5

1) Expand and simplify  $(x + 8)(x - 4)$

2) Work out  $653.163 \times 10^2$

3) Distance = 12km, Time = 240 minutes,  
Speed = ? km/h

4) Work out  $3\frac{2}{3} \times \frac{1}{4}$

5) Express 270 as a product of prime factors

92.6



1) Solve  $\frac{10x+5}{3} = 2x - 5$

2) List the first 4 terms of a geometric sequence with a first term of 3 and a common ratio of 4

3) Divide £35 in the ratio 3 : 7

4) Decrease £4560 by 5%

5) Simplify  $(4x^2y^3)^3$



93.1



1)  $3(4a + b) - 2(a + 3b)$

2) Work out  $2\frac{1}{2} \div 1\frac{2}{3}$

3) Work out  $10 + 5 \times 4 \div 2$

4) Factorise fully  $24x^3 - 8x$

5) Express 314000000 in standard form



93.2

1) What is the next term of this sequence:

3, 12, 48, 192, ?

2) Work out  $78 \div 0.3$

3) Make  $x$  the subject of  $y = \frac{x^2}{a}$

4) Expand and simplify  $(x + 10)(x - 3)$

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

93.3



1)  $2(3a + 5b) - 6(a - 2b)$

2) Work out  $3\frac{1}{2} \div 2\frac{4}{5}$

3) Work out  $13 - 2 \times 5 + 4$

4) Factorise fully  $36y^2 - 45y$

5) Express 5010000 in standard form



93.4

1) What is the next term of this sequence:

4, 12, 36, 108, ...

2) Work out  $7.24 \div 0.4$

3) Make  $x$  the subject of  $y = \frac{\sqrt{x}}{a}$

4) Expand and simplify  $(x - 6)(x - 3)$

5) Simplify  $\frac{4x}{5} - \frac{x}{4}$

93.5



1) Simplify  $2(3a - 2b) - (a - 2b)$

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

3) Work out  $6 \times 2 + 8 \div 4$

4) Factorise fully  $12x^3 + 18x^2$

5) Express 888 in standard form

93.6



1) What is the next term of this sequence:

6, 30, 150, 750, ...

2) Work out  $420 \div 1.2$

3) Make  $x$  the subject of  $y = \sqrt{x} + b$

4) Expand and simplify  $(x + 2)(x + 1)$

5) Simplify  $\frac{6x}{6} + \frac{3x}{8}$

94.1



1) Simplify  $\frac{15x^3y^4}{3x^2y}$

2) Factorise  $x^2 - 25$

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

4) If the  $n^{\text{th}}$  term of a sequence is  $3 \times 2^{n-1}$ , find the  $4^{\text{th}}$  term

5) Estimate, by rounding each number to 1 significant figure:

$$0.531^2 \times 95.8$$





94.3



1) Simplify  $\frac{(4x^2y)^2}{2xy}$

2) Factorise  $4x^2 - 9$

3) If  $x = 0.5$ , find the value of  $3x^2 - x + 5$

4) If the  $n^{\text{th}}$  term of a sequence is  $2 \times 3^{n-1}$ , find the  $4^{\text{th}}$  term

5) Estimate, by rounding each number to 1 significant figure:

$$0.213^2 \times 96.04$$



94.5



1) Simplify  $\frac{(2x^3y^2)^3}{2x^2y^2}$

2) Factorise  $25x^2 - 1$

3) If  $x = -3$ , find the value of  $x^2 - x + 5$

4) If the  $n^{\text{th}}$  term of a sequence is  $3 \times 5^{n-1}$ , find the 3<sup>rd</sup> term

5) Estimate, by rounding each number to 1 significant figure:

$$\frac{46.3 \times 17.3}{0.53}$$



95.1



1) Find the distance:

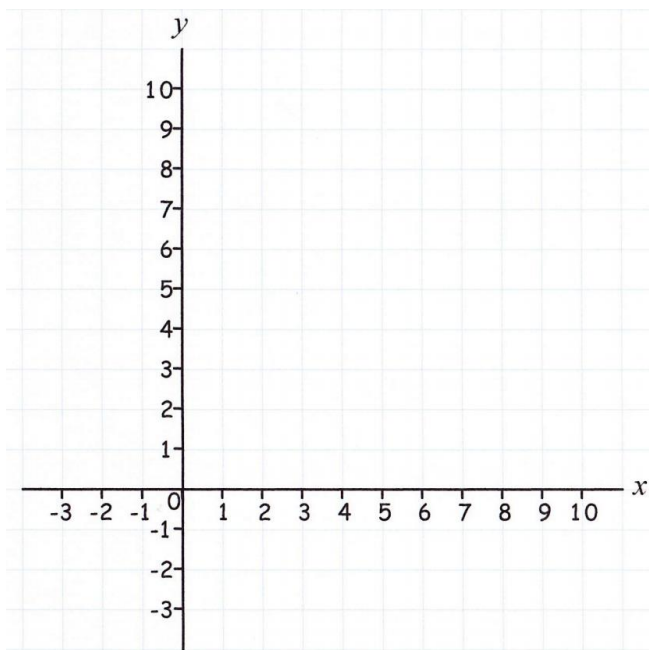
Speed = 40 km/h and time = 1 hour 30 mins

2) Factorise  $x^2 + 9x + 20$

3) Expand and simplify  $(x^2 - 3)(x + 7)$

4) Express 0.002003 in standard form

5) Find the gradient of the line  $2y - 6x = 3$



95.2



1) Make  $x$  the subject of  $y = (ax + b)^2$

2) Express  $\frac{43}{40}$  as a percentage

3) Solve  $\frac{x+3}{2} + \frac{x}{3} = 11$

4) By rounding each number to 1 significant figure,

estimate  $\frac{58^2 \times 3.89}{1.93}$

5) Find the first term: ?, 20, 100, 500, 2500, ...

95.3



1) Find the distance:

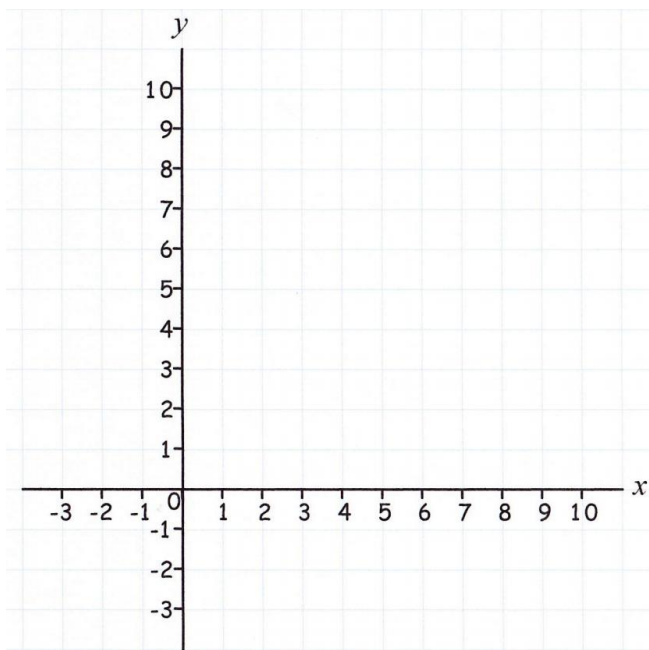
Speed = 48 km/h and time = 2 hour 15 mins

2) Factorise  $x^2 + 3x - 4$

3) Expand and simplify  $(x^2 - 2)(x - 5)$

4) Express 20190 in standard form

5) Find the gradient of the line  $2y = 6x - 2$



95.4



1) Make  $x$  the subject of  $y = a^2x + b^2$

2) Express  $\frac{39}{150}$  as a percentage

3) Solve  $\frac{2x}{4} + \frac{x-3}{3} = 11$

4) By rounding each number to 1 significant figure,

estimate  $\frac{82.3 \times 7.58}{0.176}$

5) Find the first term: ?, 0.375, 0.75, 1.5, 3, ...



95.5



1) Find the distance:

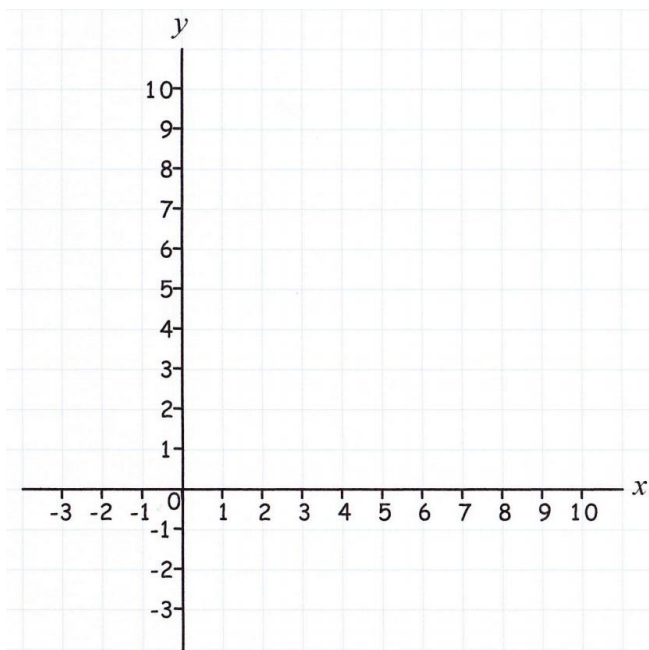
Speed = 40 km/h and time = 2 hour 45 mins

2) Factorise  $x^2 - 6x + 8$

3) Expand and simplify  $(x + 5)(x^2 - 3)$

4) Express 0.0007 in standard form

5) Find the gradient of the line  $3y = 6x - 5$



95.6



1) Make  $x$  the subject of  $y = (ax + b)^2$

2) Express  $\frac{12}{30}$  as a percentage

3) Solve  $\frac{x+2}{2} + \frac{4-2x}{5} = 6$

4) By rounding each number to 1 significant figure,

estimate  $\frac{7.1 \times 83.99}{0.49}$

5) Find the first term: ?, 1, 6, 36, ...

96.1



1) Work out  $3\frac{1}{2} \div 1\frac{2}{3}$

2) A price is reduced from £500 to £340. Calculate the percentage change.

3) Expand and simplify  $(x + 1)(x - 2)(x + 3)$

4) Expand and simplify  $(4x - 3)^2$

5) What is the 50<sup>th</sup> term of this sequence: 3, 9, 15, 21, ... ?

96.2



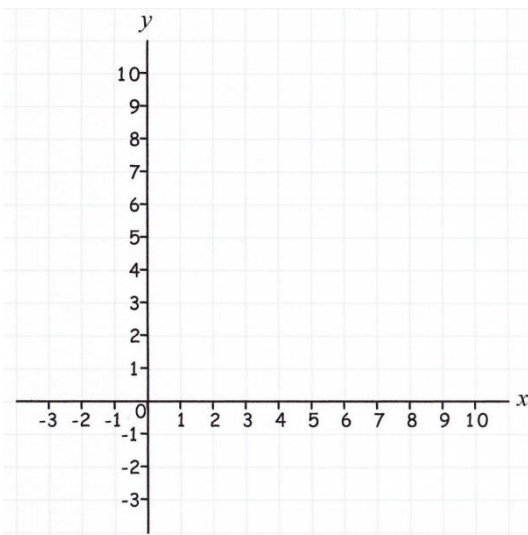
1)  $x$  is given as 60 to 1 significant figure.

Write an inequality to show the range of values that  $x$  could take.

2) Factorise  $2x^2 + 7x + 6$

3) Work out  $4 \times 10^3 \times 7 \times 10^2$ , giving the answer in standard form

4) Find the  $y$ -intercept of the line  $2y - 3x = 10$



5) Solve  $\frac{x}{3} + 5 = x + 1$

96.3



1) Work out  $2\frac{3}{4} \times 1\frac{2}{5}$

2) A price is increased from £250 to £340. Calculate the percentage change.

3) Expand and simplify  $(x - 2)(x - 5)(x + 1)$

4) Expand and simplify  $(3x - 7)^2$

5) What is the 20<sup>th</sup> term of this sequence: 10, 17, 24, 31, ... ?

96.4



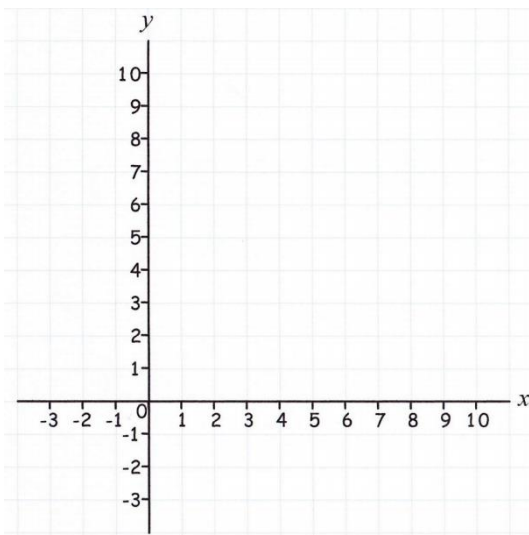
1)  $x$  is given as 50 to 2 significant figures.

Write an inequality to show the range of values that  $x$  could take.

2) Factorise  $3x^2 + 7x - 6$

3) Work out  $3 \times 10^{-3} \times 6 \times 10^{-2}$ , giving the answer in standard form

4) Find the  $y$ -intercept of the line  $2y = 6x + 5$



5) Solve  $\frac{x}{2} + 5 = 3x - 10$

96.5



1) Work out  $1\frac{4}{5} \div 1\frac{1}{5}$

2) A price is decreased from £400 to £340. Calculate the percentage change.

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

4) Expand and simplify  $(10x - 1)^2$

5) What is the 30<sup>th</sup> term of this sequence: 13, 24, 35, 46, ... ?

96.6



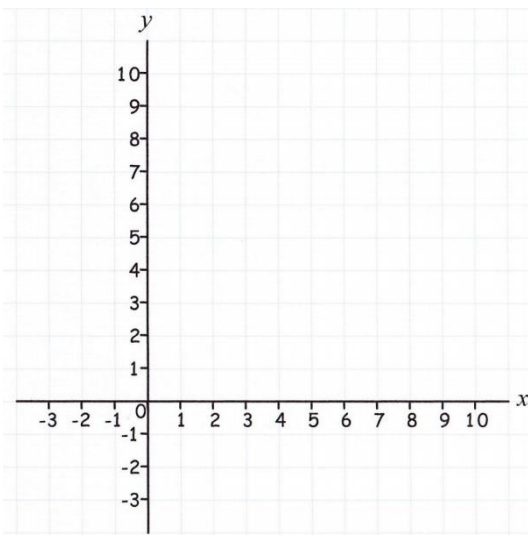
1)  $x$  is given as 2.0 to 1 decimal place.

Write an inequality to show the range of values that  $x$  could take.

2) Factorise  $5x^2 - 18x - 8$

3) Work out  $4 \times 10^8 \times 3 \times 10^{-2}$ , giving the answer in standard form

4) Find the  $y$ -intercept of the line  $2y + 3x = 5$



5) Solve  $\frac{x+1}{2} - 1 = x - 4$