



5 Estimating



Estimate the answers to the following questions by rounding each number to one significant figure.

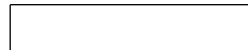
- | | | | |
|----|---|------------|--------------------------|
| 1 | 2936×7948 | 1..... | <input type="checkbox"/> |
| 2 | $8109 \div 39$ | 2..... | <input type="checkbox"/> |
| 3 | 6018×2.938 | 3..... | <input type="checkbox"/> |
| 4 | $39\ 817 \div 489$ | 4..... | <input type="checkbox"/> |
| 5 | $7982 + 1034 + 5897 + 8987$ | 5..... | <input type="checkbox"/> |
| 6 | $60\ 725 - 39\ 811$ | 6..... | <input type="checkbox"/> |
| 7 | 6981×0.19 | 7..... | <input type="checkbox"/> |
| 8 | $801.3 \div 0.793$ | 8..... | <input type="checkbox"/> |
| 9 | 69.7×0.0712 | 9..... | <input type="checkbox"/> |
| 10 | $6.017 \div 0.0310$ | 10..... | <input type="checkbox"/> |
| 11 | $79.31 \div 0.413$ | 11..... | <input type="checkbox"/> |
| 12 | 0.0701×3.079 | 12..... | <input type="checkbox"/> |
| 13 | 3.98×0.0912 | 13..... | <input type="checkbox"/> |
| 14 | $0.613 \div 0.0298$ | 14..... | <input type="checkbox"/> |
| 15 | 0.3017×0.0693 | 15..... | <input type="checkbox"/> |
| 16 | $0.00812 \div 0.0998$ | 16..... | <input type="checkbox"/> |
| 17 | 3989 litres of water flow over a waterfall each second. Estimate how long 20 801 litres will take to flow over the waterfall. | 17..... | <input type="checkbox"/> |
| 18 | A greengrocer sold 618.2 kg of potatoes at 29p per kilogram. Estimate the total value of the sale. | 18 £ | <input type="checkbox"/> |
| 19 | A lorry can carry 49 tonnes in one load. Estimate how many loads will be required to transport 20 312 tonnes of bricks. | 19..... | <input type="checkbox"/> |
| 20 | A glass holds 0.2918 l. Estimate how many glasses can be filled from a tank containing 89.32 l. | 20..... | <input type="checkbox"/> |



Minimum mark	16	13	10	7	
Circle grade	A	B	C	D	E

_____ 20

6 Using a calculator (brackets and memory) – 1



Give your answers correct to six significant figures where appropriate. Show your calculator keys for questions 1 and 5.

1 2.6 (5.83 – 1.9)

□	□	□	□	□	□	□	□	□	□
□	□	□	□	□	□	□	□	□	□

1..... □

2 7.38 (5.12 + 6.872)

2..... □

3 (4.98 – 3.26) – (3.87 x 6.34)

3..... □

4 (8.75 – 11.7) 28.3

4..... □

5 $\frac{47.28 \times 3.681}{8.917 \times 4.362}$

5..... □

□	□	□	□	□	□	□	□	□	□
□	□	□	□	□	□	□	□	□	□
□	□	□	□	□	□	□	□	□	□

6 $\frac{43.987 - 3.798}{6.371 - 1.987}$

6..... □

7 $\frac{4.8 (3.75 - 8.62)}{(2.7 \times 3.85) - 1.63}$

7..... □

8 $\frac{42.8 \times 36.5}{28.37 \times 2.987}$

8..... □

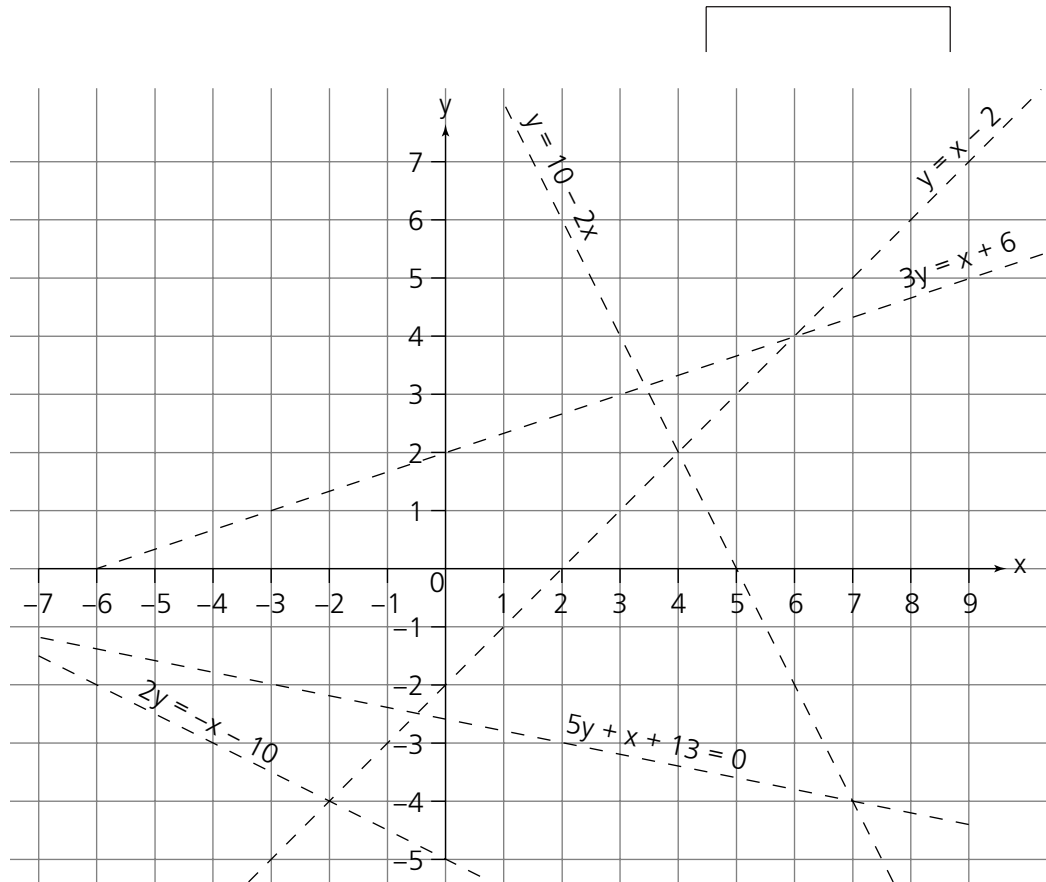


The make and type of my calculator is:

Minimum mark	7	5	4	2	
Circle grade	A	B	C	D	E

8

13 Solving simultaneous equations by drawing graphs



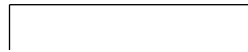
Solve the following simultaneous equations by using the graph above:

- | | | |
|---|-------------------------------------|------------------------------------|
| 1 | $3y = x + 6$ and $y = x - 2$ | 1 x=..... <input type="checkbox"/> |
| | | y=..... <input type="checkbox"/> |
| 2 | $2y = -x - 10$ and $y = x - 2$ | 2 x=..... <input type="checkbox"/> |
| | | y=..... <input type="checkbox"/> |
| 3 | $5y + x + 13 = 0$ and $y = 10 - 2x$ | 3 x=..... <input type="checkbox"/> |
| | | y=..... <input type="checkbox"/> |
| 4 | $y = x - 2$ and $y = 10 - 2x$ | 4 x=..... <input type="checkbox"/> |
| | | y=..... <input type="checkbox"/> |

Minimum mark	7	5	4	2	
Circle grade	A	B	C	D	E

8

14 Inequalities – 1



Solve these inequalities:

- 1 $5x > 30$ 1.....
- 2 $6x \leq 18$ 2.....
- 3 $4x + 2 \geq 10$ 3.....
- 4 $5x - 3 < 18$ 4.....
- 5 $3a - 4 > 20$ 5.....
- 6 $2y \leq 7$ 6.....
- 7 $x^2 < 36$ 7.....
- 8 $y^2 < 49$ 8.....
- 9 $2a^2 < 200$ 9.....
- 10 $a^2 > 25$ 10.....
- 11 $-2a \leq -24$ 11.....
- 12 $-5a > 8$ 12.....
- 13 $3a < -30$ 13.....
- 14 $-6a \geq 15$ 14.....
- 15 $-5x < -15$ 15.....
- 16 $-8a - 3 > 9$ 16.....



Minimum mark	13	11	8	5	
Circle grade	A	B	C	D	E

_____ 16