



- 1 Write down the value of the 3 in the number 8.234

(1 mark)

The 3 is in the hundredths column

Its value is 0.03, which is 3 hundredths

0.03

- 2 Here is a number.

6 305 819

- a. Write down the value of the 3
b. Write down the number that is 10 000 more than 6 305 819

(2 marks)

a)

3 is in the hundred thousands column

300 000

b)

ten thousands digit: $0 + 1 = 1$

6 315 819

- 3 Work out these without a calculator. Try to do them in your head.

- a. $3600 + 4700$
b. $15\,000 - 6800$

(2 marks)

a)

$$3600 + 4000 = 7600$$

$$7600 + 700 = 8300$$

8300

b)

take away 7000, then add back 200

$$15\,000 - 7000 = 8000$$

$$8000 + 200 = 8200$$

8200

4 Use a written method to work out $47.385 + 6.27 + 128$

(2 marks)

Line up the decimal points

$$47.385 + 6.270 = 53.655$$

$$53.655 + 128.000 = 181.655$$

181.655

5 Use a written method to work out $300.4 - 86.75$

(2 marks)

write 300.4 as 300.40

exchange across the zeros

$$300.40 - 86.75 = 213.65$$

check: $213.65 + 86.75 = 300.40$

213.65

6 Amir has £20

He buys a book costing £7.65 and a magazine costing £4.80

Work out how much money Amir has left.

(2 marks)

Total spent

$$£7.65 + £4.80 = £12.45$$

Money left

$$£20 - £12.45 = £7.55$$

£7.55

7 a. Write the number 4738 correct to 2 significant figures.

b. Write the number 0.05372 correct to 2 significant figures.

(2 marks)

Significant figures start at the first non-zero digit. Keep the requested number of digits and inspect the next digit to decide whether to round up. Leading zeros locate the decimal point; they do not count as significant figures

a) The first two significant figures are 4 and 7; the next digit is 3, so round down: 4700

b) The first two significant figures are 5 and 3; the next digit is 7, so round up: 0.054

8

Here is a column addition with two digits missing.

$$\begin{array}{r} 4 \square 7 \\ + 28\square \\ = 732 \end{array}$$

Find the two missing digits.

(2 marks)

units

$$7 + 5 = 12, \text{ write } 2 \text{ carry } 1$$

tens

$$4 + 8 + 1 = 13, \text{ write } 3 \text{ carry } 1$$

hundreds

$$4 + 2 + 1 = 7$$

$$\boxed{447 + 285 = 732}$$

9

Zara works out $39.8 + 61.3 - 19.6$

She gets 181.5

Use estimation to show that Zara must be wrong.

(2 marks)

round each number

$$39.8 \approx 40$$

$$61.3 \approx 60$$

$$19.6 \approx 20$$

$$40 + 60 - 20 = 80$$

$$\boxed{\text{about } 80, \text{ so } 181.5 \text{ is wrong}}$$

10

The Year 7 summer fair raised £1245.60 on Saturday and £987.85 on Sunday.

The prizes cost £368.40

How much money did the fair make after paying for the prizes?

(3 marks)

total raised

$$1245.60 + 987.85 = 2233.45$$

take off the prizes

$$2233.45 - 368.40 = 1865.05$$

$$\boxed{£1865.05}$$

11

Oliver has £10 pocket money.

He buys a comic for £2.75, a bag of sweets for £1.48 and a drink for 95p.

Oliver wants to have at least £5 left to save.

Does he have enough left? Show how you decide.

(3 marks)

$$95p = £0.95$$

$$2.75 + 1.48 = 4.23$$

$$4.23 + 0.95 = 5.18$$

$$10.00 - 5.18 = 4.82$$

$$£4.82 < £5$$

No, he has £4.82 left

12

Work out an estimate for the value of

$$\frac{48.7 \times 6.12}{0.216}$$

You must round each number to 1 significant figure.

(3 marks)

Round each number to 1 significant figure: 48.7 becomes 50, 6.12 becomes 6, 0.216 becomes 0.2

Numerator

$$50 \times 6 = 300$$

$$300 \div 0.2 = 3000 \div 2 = 1500$$

1500