1. Amina asked 60 children to choose their favourite flavour of jelly.

These were her results.

| Flavour | Number of <br> children |
| :--- | :---: |
| Raspberry | 12 |
| Lemon | 8 |
| Orange | 15 |
| Blackcurrant | 25 |
| Total | $\mathbf{6 0}$ |

What percentage of the 60 children chose orange?


1 mark
2.

A cat sleeps for $\mathbf{1 2}$ hours each day.
$\mathbf{5 0 \%}$ of its life is spent asleep.


Write the missing percentage.
A koala sleeps for $\mathbf{1 8}$ hours each day.

of its life is spent asleep.

3. $20 \%$ of the children in a sports club play tennis.

$25 \%$ of the children who play tennis also play rounders.


There are 8 children in the club who play both tennis and rounders.
How many children are there in the sports club altogether?

4. $20 \%$ of Megan's number is 64

What is $50 \%$ of Megan's number?

5. Write these in order of size, starting with the smallest.


1 mark
6. Write the missing number.

7. What is $10 \%$ of a half?

1 mark
What percentage of 20 is $19 ?$

8.


In Class 6, 80\% of the children like crisps.
$75 \%$ of the children who like crisps also like chocolate.

In Class 6, what percentage of the children like both crisps and chocolate?

9. Chloe and Denise each bought identical T-shirts from the same shop.

Chloe bought hers on Monday when there was $\mathbf{1 5 \%}$ off the original price.


Denise bought hers on Friday when there was $\mathbf{2 0 \%}$ off the original price.


Chloe paid 35p more then Denise.
What was the original price of the T-shirt?

10. Linda buys a pair of trainers.


She says,
'I bought this pair of trainers when there was $20 \%$ off the normal price. I paid £18 for them.'

What was the normal price of the trainers?


2 marks

## Mark schemes

1. 25
2. 75
3. 160
or
32 seen (number who play tennis)
Do not accept 32\% seen
OR
Shows or implies a complete correct method, eg:

- $8 \times 4 \times 5$
- $25 \%$ of tennis is 8
$8 \times 4=24$ (error)
tennis is $20 \%$ of sports club
$24 \times 5=120$

4. Award TWO marks for the correct answer of 160

If the answer is incorrect, award ONE mark for evidence of appropriate working, eg:

- $64 \div 2=32$

$$
64+64+32=\text { wrong answer }
$$

## OR

- $64 \times 5=320$
$320 \div 2=$ wrong answer Working must be carried through to reach an answer for the award of ONE mark.

5. Numbers in order as shown:


Accept use of equivalent fractions, decimals or percentages, eg $0.34,0.43,0.7,0.75$
6. $25 \%$

Do not accept equivalent fractions or decimals
7.
(a) $\frac{1}{20}$ or equivalent

Accept equivalent fractions, decimals
or percentages, eg:

- $5 \%$
- 0.05
- $\frac{5}{100}$

Do not accept 5 without a percentage sign

1
(b) 95

## Do not accept equivalent fractions or decimals

8. Award TWO marks for the correct answer of $60 \%$

If the answer is incorrect, award ONE mark
for evidence of an appropriate method, eg

$$
\frac{75}{100} \times 80
$$

Answer need not be obtained for the award of the mark.
9.

Award TWO marks for the correct answer of $£ 7$ OR $£ 7.00$
If the answer is incorrect, award ONE mark for evidence of an appropriate method, eg
$5 \%=35$
$100 \%=35 \times 20$
Accept for TWO marks $£ 7.00$ p OR $£ 700$
Accept for ONE mark $£ 700$ OR $£ 700$ p as evidence of an appropriate method.

Up to 2
10.

Award TWO marks for the correct answer of $£ 22.50$
If answer is incorrect, award ONE mark for evidence of an appropriate method, eg:
$18 \times \frac{100}{80}$
OR $18 \div 4=4.5$
AND $18+4.5$ = incorrect answer
Accept any clear indication of the distinction between pounds and pence
Accept £22.50p OR £22.50.
Accept 22.50 OR 2250p written outside the answer box.
Incorrect answers include £2250 OR £2250p OR 2250 OR 22.50p written outside the answer box.

Calculation need not be performed for the award of ONE mark, but the method shown must be capable of producing the correct answer.

Up to 2

