

**AcumenTeach**

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11+ MATHEMATICS

Percentages Worksheet

Free practice · 10 questions · Answers and worked solutions included

Name	
Date	
Score	/ 10

Instructions

1. Choose one answer, A, B, C or D, for each question.
2. Show your working on the lines under each question.
3. No calculator. Take your time: this is practice, not a timed test.
4. Check your answers with the worked solutions at the back.

Question 1

What is 25% of 360?

A 72**B** 80**C** 90**D** 120**Question 2**

What is 12% of 450?

A 45**B** 54**C** 56**D** 60**Question 3**

Write 18 out of 60 as a percentage.

A 18%**B** 25%**C** 30%**D** 36%

Question 4

Increase 160 by 15%.

A 175**B** 176**C** 184**D** 190**Question 5**

Decrease £250 by 30%.

A £175**B** £180**C** £200**D** £220**Question 6**

Which is the largest?

A 35% of 80**B** 20% of 150**C** 45% of 60**D** 60% of 45

Question 7

A shirt costs £36 after a 25% discount. What was the original price?

A £27**B** £45**C** £48**D** £52**Question 8**

Write $\frac{3}{20}$ as a percentage.

A 3%**B** 15%**C** 20%**D** 23%**Question 9**

There are 32 children in a class. 75% walk to school. How many do not walk?

A 8**B** 12**C** 24**D** 25

Question 10

A price rises from £40 to £46. What is the percentage increase?

A 6%**B** 13%**C** 15%**D** 16%

Answers and Worked Solutions

For parents and tutors. Award 1 mark for each correct answer.

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	C	2	B	3	C	4	C	5	A
6	B	7	C	8	B	9	A	10	C

Diagram colour key

- Given in the question
 Worked out
 Groups and matching parts
 Final answer

Question 1

Core

What is 25% of 360?

A 72 B 80 C 90 D 120

Step	What to do	Working
1	25% is one quarter	$360 \div 4 = 90$
✓	Answer	C = 90

Watch out: Dividing by 5 (72), as if 25% were one fifth.

Question 2

Stretch

What is 12% of 450?

A 45 B 54 C 56 D 60

Step	What to do	Working
1	Find 10%	$450 \div 10 = 45$
2	Find 1% and 2%	4.5 and 9
3	Add 10% and 2%	$45 + 9 = 54$
✓	Answer	B = 54

Watch out: Finding only 10% (45).

Question 3**Core***Write 18 out of 60 as a percentage.*

A 18% B 25% C 30% D 36%

Step	What to do	Working
1	Write as a fraction	18/60
2	Simplify	$18/60 = 3/10$
3	Make the denominator 100	$30/100 = 30\%$
✓	Answer	C = 30%

Watch out: Writing 18% because 18 is in the question.**Question 4****Stretch***Increase 160 by 15%.*

A 175 B 176 C 184 D 190

Step	What to do	Working
1	Find 10% and 5%	16 and 8
2	Add to find 15%	$16 + 8 = 24$
3	Add to the original	$160 + 24 = 184$
✓	Answer	C = 184

Watch out: Adding 15 instead of 15% (175).**Question 5****Core***Decrease £250 by 30%.*

A £175 B £180 C £200 D £220

Step	What to do	Working
1	Find 10%	£25
2	Find 30%	$£25 \times 3 = £75$
3	Subtract	$£250 - £75 = £175$
✓	Answer	A = £175

Watch out: Subtracting £30 instead of 30% (£220).

Question 6**Challenge**

Which is the largest?

A 35% of 80 B 20% of 150 C 45% of 60 D 60% of 45

Step	What to do	Working
1	Work out each one	28, 30, 27, 27
2	Pick the largest	30 → 20% of 150
✓	Answer	B = 20% of 150

Watch out: Picking the biggest percentage (60%) without working each one out.

Question 7**Challenge**

A shirt costs £36 after a 25% discount. What was the original price?

A £27 B £45 C £48 D £52

Step	What to do	Working
1	After 25% off, £36 is 75% of the price	75% = £36
2	Find 25%	$£36 \div 3 = £12$
3	Find 100%	$£12 \times 4 = £48$
✓	Answer	C = £48

Original price = 100% = 4 quarters



$£36 \div 3 = £12$ per quarter

Original price: $4 \times £12 = £48$

Watch out: Adding 25% of £36 (£45). The discount was taken from the original price, not £36.

Question 8**Core***Write $\frac{3}{20}$ as a percentage.*

A 3% B 15% C 20% D 23%

Step	What to do	Working
1	Make the denominator 100	$\times 5$ top and bottom
2	Write as a percentage	$15/100 = 15\%$
✓	Answer	B = 15%

Watch out: Writing 3% or 20% from the numbers shown.**Question 9****Stretch***There are 32 children in a class. 75% walk to school. How many do not walk?*

A 8 B 12 C 24 D 25

Step	What to do	Working
1	Find the percentage who do not walk	$100\% - 75\% = 25\%$
2	Find 25% of 32	$32 \div 4 = 8$
✓	Answer	A = 8

Watch out: Answering how many do walk (24).**Question 10****Challenge***A price rises from £40 to £46. What is the percentage increase?*

A 6% B 13% C 15% D 16%

Step	What to do	Working
1	Find the increase	$£46 - £40 = £6$
2	Compare with the original	$6/40 = 15/100$
3	Write as a percentage	15%
✓	Answer	C = 15%

Watch out: Writing 6% because the increase is £6.

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