## Exam Style Questions

## Percentage Change

Corbettmoths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser
You may use tracing paper if needed

## Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic
www.corbettmaths.com/contents

1.

(a) The price of a TV is $£ 260$ In a sale the price is decreased by $20 \%$

Work out the price of the TV in the sale.
(b) The number of TVs sold increased from 70 to 98

Work out the percentage increase.
$\qquad$
2. The value of a painting rises from $£ 120,000$ to $£ 192,000$.


Work out the percentage increase in the value of the painting.
3. A puppy weighed 2 kg .

Eight weeks later the puppy weighed 3.5 kg

What was the percentage increase in the puppy's weight?
4. Peter's weight decreases from 80 kg to 64 kg .


Calculate the percentage decrease in Peter's weight.
5. Alice buys a book for $£ 19.80$

A year later she sells the book for $£ 12.87$

Calculate the percentage decrease in the value of the book.
6. In a sale the price of a sofa is reduced from $£ 2500$ to $£ 1840$

What is the percentage decrease?
7. The volume of juice in a can is increased from 250 ml to 330 ml .


Work out the percentage increase.
$\qquad$
\%
8. Sarah bought a TV for $£ 250$


Three years later she sold it for £180

Work out her percentage loss
9. A car is travelling at 40 kilometres per hour.

The car increases its speed to 56 kilometres per hour.
Calculate the percentage increase in the speed of the car.
10. Susan buys an antique for $£ 120$ and sells it for $£ 216$.


Work out her percentage profit
11. Holly bought a table for $£ 80$


She sold the table for £108

Find the percentage profit
12. The population of Northern Ireland in 1911 was $1,256,561$

In 2011 the population was 1,810,863.
Calculate the percentage increase.
Give your answer correct to one decimal place.
13. In 2000 the price of a house was $£ 72,600$.


By 2010 the price of the house had increased to $£ 125,598$
Find the percentage increase in the price of the house from 2000 to 2010.
14. A website had 140,000 views in March.


It had 198,800 views in April.

Work out the percentage increase in views.
15. In a sale the price of microwave decreases from $£ 50$ to $£ 39$.

Work out the percentage decrease in price.
16. An empty bucket weighs 800 g .

國 The weight of the bucket increases to 2.1 kg when filled with water.
Calculate the percentage increase in the weight of the bucket.
Give your answer to two significant figures.
17. Orla weighed 3.77 kg when she was born.


On Orla's second birthday she weighed 12.8 kg .
Calculate the percentage increase in her weight.
18. Rebecca and Jennifer take part in a training camp to improve their performance at the javelin.

The table below shows Rebecca's and Jennifer's best javelin throw before and after the training camp.

|  | Before training camp | After training camp |
| :--- | :---: | :---: |
| Rebecca | 50.02 m | 51.27 m |
| Jennifer | 45.88 m | 46.92 m |

Which athlete had the biggest percentage improvement?
You must show your method.
19. Terry goes to the Post Office to exchange money.


Exchange Rates
£1: \$1.55 £1: €1.24
*Commission Charged

Terry changes $\$ 651$ and $€ 161.20$ into pounds sterling.
The Post Office deducts their commission and gives Terry £528.

What is the percentage commission?
20. The number of visitors to a museum in 2014 was $6.2 \times 10^{5}$
 In 2015, the museum had $7.8 \times 10^{5}$ visitors

Calculate the percentage increase.
21. A clothes shop normally sells their goods at $80 \%$ above cost price.
 In a sale, the shop reduces the prices by $25 \%$.

What percentage profit does the shop make on clothes sold in the sale?
$\qquad$
22. James bought a house.


The value of the house decreased by 20\% in 2011.

For three consecutive years, 2012, 2013 and 2014 the value of the house increased.
Each year the percentage increase in value was the same each time.
The value of the house at the end of 2014 was $6.48 \%$ more than he paid for the house.

Calculate the percentage increase in value of the house for each of the three of the three consecutive years.

