

## ESW Support Materials

### Fractions, Decimals and Percentages - Teacher's Pack

This pack has been prepared to provide centres with additional opportunities for their learners to strengthen their knowledge of the application of fractions, decimals and percentages. It also provides additional examples of multiple-choice questions for the learners to practice their calculations.

The pack also includes examples of how to 'cancel down' to make the numbers easier to work with. It may be that your learner requires additional practice with this strategy.

#### Test Practice Answers and Rationale for Distractors

This section provides the answers to the test practice questions on pages 27-32 of the pack. It also gives the rationale for the distractors. This will help you explore any misconceptions that the learner may be having and to consider how these can be addressed.

1. A shop reduces its prices by 5% in a sale.  
What fraction is the same as 5%?

A	$\frac{1}{5}$	using the 5
B	$\frac{5}{10}$	5 over 10 instead of 5 over 100
C	$\frac{1}{20}$	key
D	$\frac{1}{50}$	using the 5 incorrectly

2. The table shows reviews of a takeaway.

Rating	Number of customers
Excellent	24
Good	27
OK	20
Poor	1

What fraction of all the customers gave an Excellent rating?

A	$\frac{1}{2}$	24/48
B	$\frac{1}{3}$	key
C	$\frac{8}{9}$	24/27
D	$\frac{3}{10}$	approximation

3. A worker earns  $1\frac{1}{4}$  times the usual pay for working at weekends.

What is  $1\frac{1}{4}$  as a decimal?

A	1.5	from $1 + \frac{1}{4}$
B	1.4	using the 4
C	1.25	key
D	1.04	place value error

4. A company tests a sample of 40 of its products.

It found that of the products in the sample were faulty.

What percentage of the products in the sample were faulty?

A	2%	using the 2
B	5%	key
C	10%	simplifying error 2/20
D	20%	$40 \div 2$

5. A phone display shows the battery has 23% charge.

Which fraction is closest to 23%?

A	$\frac{1}{5}$	key
B	$\frac{2}{3}$	using the 2 and 3
C	$\frac{3}{10}$	approximation
D	$\frac{27}{100}$	approximation

6. There are 3500 home fans and 1500 away fans in a stadium for a match.

What fraction of all the fans are away fans?

A	$\frac{1}{15}$	using the 15 from 1500
B	$\frac{3}{10}$	key
C	$\frac{3}{7}$	1500/3500
D	$\frac{3}{4}$	1500/(3500-1500)

7. A survey found that  $\frac{7}{8}$  of people prefer coffee to tea.

What percentage is the same as  $\frac{7}{8}$  ?

A	12.5%	1/8
B	56%	7 × 8
C	78%	using 7 and 8
D	87.5%	key

8. One mile is approximately 1.6 kilometres.

What is 1.6 as a fraction?

A	$1\frac{3}{50}$	simplifying error
B	$1\frac{1}{16}$	using 1 and 6
C	$1\frac{1}{6}$	using 1 and 6
D	$1\frac{3}{5}$	key

9. The table shows the costs of organising an event.

Item	Cost
Venue	£60
Food	£210
Music	£30

What percentage of the total cost was spent on the venue?

A	5%	$300 \div 60$
B	20%	key
C	25%	$60 \div 240$
D	60%	$60 / 100$

10. A driving school has a success rate of 88%.

Which fraction is closest to 88%?

A	$\frac{3}{4}$	approximation
B	$\frac{4}{5}$	approximation
C	$\frac{9}{10}$	key
D	$\frac{19}{20}$	approximation

11. The table shows information about members of a judo club.

Level	Number of members
Beginner	21
Intermediate	28
Advanced	7

What fraction of all the members are beginners?

A	$\frac{3}{8}$	key
B	$\frac{3}{5}$	$21 / (28 + 7)$
C	$\frac{5}{8}$	$(28 + 7)/56$
D	$\frac{3}{4}$	$21 / 28$

12. A carpenter uses screws that are  $\frac{5}{8}$  of an inch long.

Which decimal is equal to  $\frac{5}{8}$  ?

A	0.16	from $8 \div 5$
B	0.375	$(8 - 5)/8$
C	0.58	using the 5 and 8
D	0.625	key

13. A pound weight is approximately 0.45 kg.

Which fraction is the same as 0.45?

A	$\frac{2}{5}$	approximation
B	$\frac{9}{20}$	key
C	$\frac{4}{5}$	using the 4 and 5
D	$\frac{9}{10}$	simplifying error, $45 \div 9$ and $100 \div 10$

14. A taxi company announces a 6% increase in fares.

What fraction is equal to 6%?

A	$\frac{5}{30}$	1/6
B	$\frac{1}{6}$	using the 6
C	$\frac{3}{50}$	key
D	$\frac{3}{5}$	6/10 instead of 6/100

15. The tables shows the results of a travel to work survey.

Method of travel	Number of people
Car	48
Public transport	6
Walk	4
Cycle	2

What percentage of all the people in the survey travel to work by car?

A	4%	$48/(6 + 4 + 2) = 4$
B	8%	$48/6 = 8$
C	25%	$(6 + 4 + 2)/48$
D	80%	key