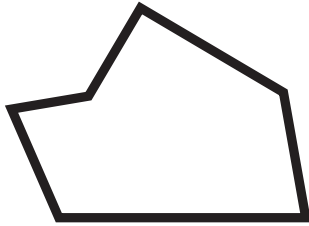


Big Maths Beat That!: Teacher Notes

SAFE Challenge 15			
	Step Location in the SAFE framework		Title of Step
	Progress Drive	Step No.	
Q1	Shape: 2D Shapes	23	I can sort polygons by side number and identify specific triangles and quadrilaterals
Q2	Amounts: Amounts of Space	20	I can convert litres to millilitres
Q3	Amounts: Amounts of Time	25	I can calculate time gaps within an hour (5 min)
Q4	Amounts: Amounts of Time	26	I can calculate time gaps across an hour (5 min)
Q5	Amounts: Amounts of Time	27	I can calculate time gaps across several hours (5 min)
Q6	Fractions: Fractions of a Set	12	I use all tables Learn Its to find fractions of amounts
Q7	Fractions: Fractions: Counting	13	I can count in fifths
Q8	Fractions: Fractions: Counting	16	I can record my hundredths with decimals too
Q9	Fractions: Fractions: Learn Its	7	I know $\frac{1}{2} = 0.5$, $\frac{1}{10} = 0.1$, $\frac{1}{4} = 0.25$ $\frac{3}{4} = 0.75$, $\frac{1}{100} = 0.01$
Q10	Fractions: Fractions: It's Nothing New	7	I can multiply unit fractions (beyond 1)

1



Tick the correct statements:

6 sides All internal angles are the same All internal angles are different

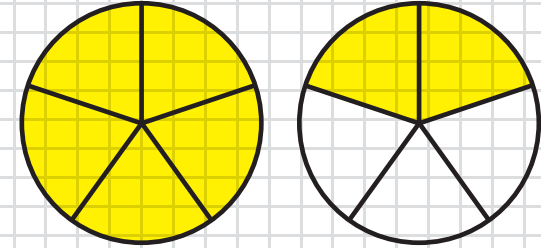
2

4 L = _____ ml

$4\frac{1}{2}$ L = _____ ml

4.5 L = _____ ml

7



Mixed number → _____

Improper fraction → _____

3

How long from?

04:05

to

04:40

5

How long from?

03:20

to

06:35

8

0.47 as a proper fraction =

 $\frac{38}{100}$ as a decimal =

4

How long from?

03:40

to

04:25

6

$\frac{1}{9}$ of 63 =

$\frac{4}{9}$ of 63 =

9

Write these fractions as decimal equivalents

$\frac{1}{2} =$

$\frac{1}{10} =$

$\frac{1}{4} =$

10

4 x $\frac{1}{3} =$

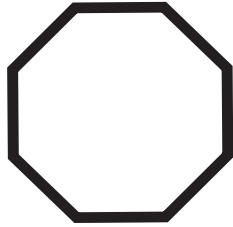


MY LAST SCORE?!

HAVE I BEAT THAT?!



1



Tick the correct statements:

8 sides All internal angles are the same All internal angles are different

3

How long from?

02:20

to

02:35

4

How long from?

08:20

to

09:05

2

3 L = _____ ml

 $3\frac{1}{2}$ L = _____ ml

3.5 L = _____ ml

5

How long from?

06:10

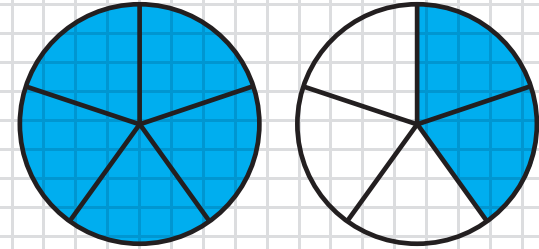
to

09:05

6

 $\frac{1}{8}$ of 48 = $\frac{5}{8}$ of 48 =

7



Mixed number → _____

Improper fraction → _____

8

0.02 as a proper fraction =

 $\frac{72}{100}$ as a decimal =

9

Write these fractions as decimal equivalents

 $\frac{3}{4}$ = $\frac{1}{10}$ = $\frac{1}{2}$ =

10

8 x $\frac{1}{4}$ =

MY LAST SCORE?!

HAVE I BEAT THAT?!



1



Tick the correct statements:

7 sides All internal angles are the same Is a pentagon

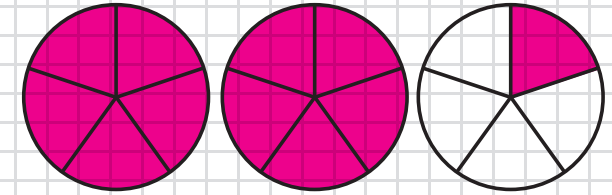
2

6 L = _____ ml

$6\frac{1}{4}$ L = _____ ml

6.5 L = _____ ml

7



Mixed number → _____

Improper fraction → _____

3

How long from?

09:30

to

09:50

5

How long from?

01:10

to

05:30

8

0.62 as a proper fraction =

 $\frac{11}{100}$ as a decimal =

4

How long from?

10:15

to

11:35

6

$\frac{1}{6}$ of 36 =

$\frac{4}{6}$ of 36 =

9

Write these fractions as decimal equivalents

$\frac{3}{4} =$

$\frac{1}{100} =$

$\frac{1}{10} =$

10

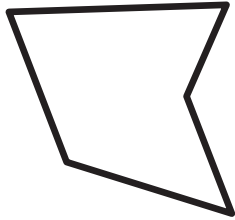
5 x $\frac{1}{3} =$

MY LAST SCORE?!

HAVE I BEAT THAT?!



1



Tick the correct statements:

5 sides Is a regular polygon Is a pentagon

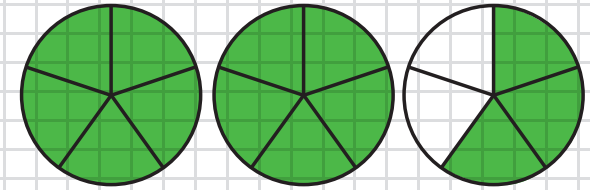
2

4 L = _____ ml

$4\frac{1}{2}$ L = _____ ml

$4\frac{3}{4}$ L = _____ ml

7



Mixed number → _____

Improper fraction → _____

3

How long from?

10:35

to

10:55

5

How long from?

03:15

to

06:45

8

0.17 as a proper fraction =

 $\frac{19}{100}$ as a decimal =

4

How long from?

06:30

to

07:30

6

$\frac{1}{7}$ of 56 =

$\frac{5}{7}$ of 56 =

9

Write these fractions as decimal equivalents

$\frac{1}{10} =$

$\frac{1}{2} =$

$\frac{3}{4} =$

10

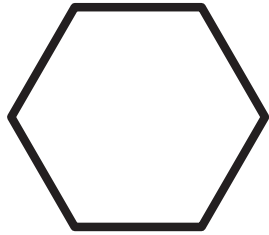
$3 \times \frac{1}{2} =$

MY LAST SCORE?!

HAVE I BEAT THAT?!



1



Tick the correct statements:

6 sides Is a hexagon 7 sides

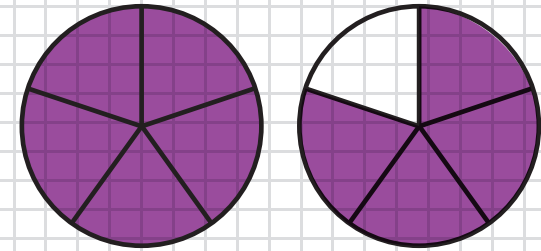
2

8 L = _____ ml

$8\frac{1}{4}$ L = _____ ml

$8\frac{1}{2}$ L = _____ ml

7



Mixed number → _____

Improper fraction → _____

3

How long from?

07:05

to

07:45

5

How long from?

07:05

to

09:55

8

0.43 as a proper fraction =

 $\frac{67}{100}$ as a decimal =

4

How long from?

08:20

to

09:15

6

$\frac{1}{4}$ of 32 =

$\frac{3}{4}$ of 32 =

9

Write these fractions as decimal equivalents

$\frac{3}{4} =$

$\frac{1}{2} =$

$\frac{1}{10} =$

10

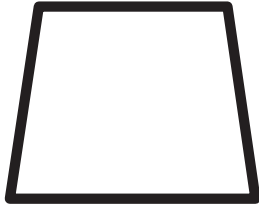
9 x $\frac{1}{7} =$

MY LAST SCORE?!

HAVE I BEAT THAT?!



1



Tick the correct statements:

4 sides Is a trapezium Is a hexagon

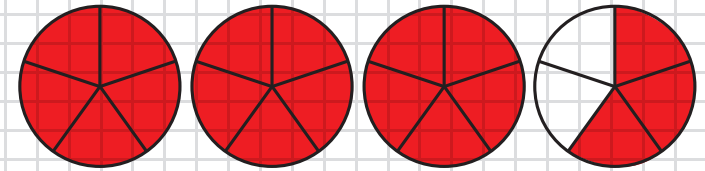
2

9 L = _____ ml

$9\frac{1}{2}$ L = _____ ml

9.5 L = _____ ml

7



Mixed number → _____

Improper fraction → _____

3

How long from?

04:15

to

04:20

5

How long from?

03:25

to

07:15

8

0.69 as a proper fraction =

 $\frac{96}{100}$ as a decimal =

4

How long from?

06:10

to

07:25

6

$\frac{1}{7}$ of 49 =

$\frac{5}{7}$ of 49 =

9

Write these fractions as decimal equivalents

$\frac{1}{4} =$

$\frac{1}{10} =$

$\frac{1}{100} =$

10

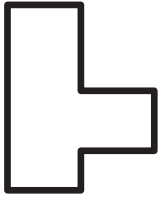
$7 \times \frac{1}{5} =$

MY LAST SCORE?!

HAVE I BEAT THAT?!



1



Tick the correct statements:

8 sides Is a rhombus Is an octagon

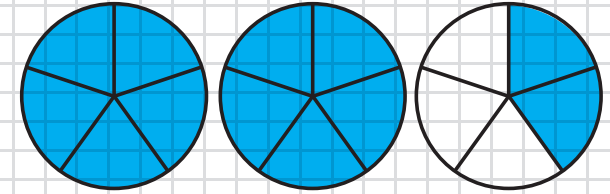
2

3 L = _____ ml

$3\frac{3}{4}$ L = _____ ml

3.5 L = _____ ml

7



Mixed number → _____

Improper fraction → _____

3

How long from?

09:30

to

09:55

5

How long from?

01:10

to

05:40

8

0.21 as a proper fraction =

 $\frac{37}{100}$ as a decimal =

4

How long from?

08:50

to

09:05

6

$\frac{1}{3}$ of 27 =

$\frac{2}{3}$ of 27 =

9

Write these fractions as decimal equivalents

$\frac{3}{4} =$

$\frac{1}{2} =$

$\frac{1}{100} =$

10

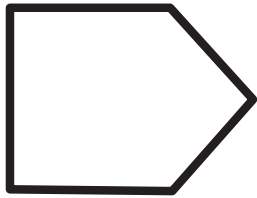
6 x $\frac{1}{4} =$

MY LAST SCORE?!

HAVE I BEAT THAT?!



1



Tick the correct statements:

5 sides

Is a pentagon

Is a square

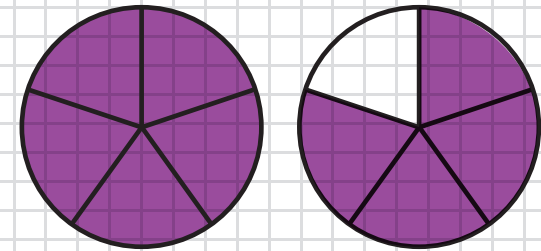
2

2 L = _____ ml

2 $\frac{1}{4}$ L = _____ ml

2 $\frac{1}{2}$ L = _____ ml

7



Mixed number → _____

Improper fraction → _____

3

How long from?

12:05

to

12:40

5

How long from?

09:05

to

11:10

8

0.62 as a proper fraction =

$\frac{71}{100}$ as a decimal =

4

How long from?

04:30

to

05:35

6

$\frac{1}{8}$ of 56 =

$\frac{3}{8}$ of 56 =

9

Write these fractions as decimal equivalents

$\frac{1}{2}$ =

$\frac{1}{10}$ =

$\frac{1}{100}$ =

10

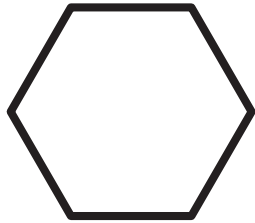
7 x $\frac{1}{6}$ =

MY LAST SCORE?!

HAVE I BEAT THAT?!



1



Tick the correct statements:

6 sides Is a hexagon Is a triangle

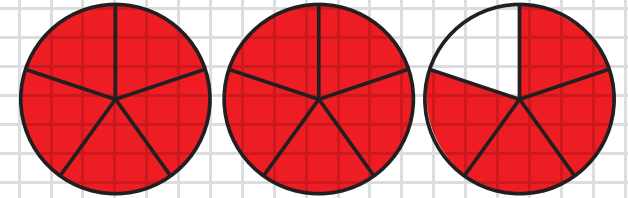
2

5 L = _____ ml

$5 \frac{1}{2}$ L = _____ ml

$5 \frac{3}{4}$ L = _____ ml

7



Mixed number → _____

Improper fraction → _____

3

How long from?

03:05

to

03:25

5

How long from?

04:55

to

06:10

8

0.06 as a proper fraction =

 $\frac{9}{100}$ as a decimal =

4

How long from?

08:05

to

09:20

6

$\frac{1}{7}$ of 42 =

$\frac{4}{7}$ of 42 =

9

Write these fractions as decimal equivalents

$\frac{1}{100} =$

$\frac{3}{4} =$

$\frac{1}{4} =$

10

8 x $\frac{1}{5} =$



MY LAST SCORE?!

HAVE I BEAT THAT?!

1



Tick the correct statements:

7 sides Is a heptagon Is an octagon

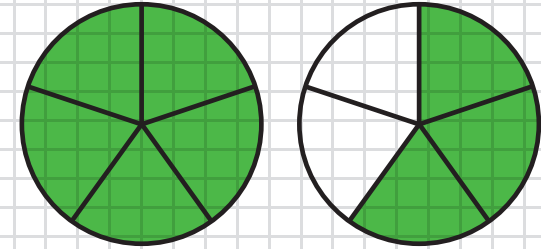
2

4 L = _____ ml

$4\frac{1}{4}$ L = _____ ml

$4\frac{1}{2}$ L = _____ ml

7



Mixed number → _____

Improper fraction → _____

3

How long from?

05:10

to

05:40

5

How long from?

02:40

to

05:45

8

0.91 as a proper fraction =

 $\frac{44}{100}$ as a decimal =

4

How long from?

06:10

to

07:15

6

$\frac{1}{6}$ of 36 =

$\frac{5}{6}$ of 36 =

9

Write these fractions as decimal equivalents

$\frac{1}{10} =$

$\frac{1}{4} =$

$\frac{1}{2} =$

10

6 x $\frac{1}{4} =$



MY LAST SCORE?!

HAVE I BEAT THAT?!

ANSWERS

SAFE 15

SET: 1

/10

1



Tick the correct statements:

6 sides



All internal angles are the same



All internal angles are different



3

How long from?

04:05

to

04:40

35 minutes

4

How long from?

03:40

to

04:25

45 minutes

2

$$4 \text{ L} = \underline{\underline{4000}} \text{ ml}$$

$$4 \frac{1}{2} \text{ L} = \underline{\underline{4500}} \text{ ml}$$

$$4.5 \text{ L} = \underline{\underline{4500}} \text{ ml}$$

5

How long from?

03:20

to

06:35

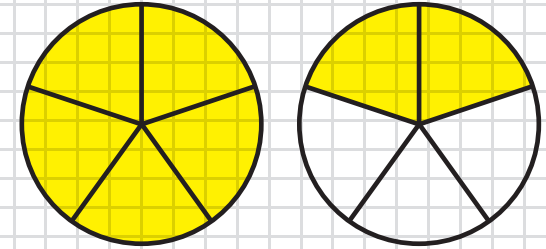
3 hours 15 minutes

6

$$\frac{1}{9} \text{ of } 63 = \underline{\underline{7}}$$

$$\frac{4}{9} \text{ of } 63 = \underline{\underline{28}}$$

7



Mixed number



$1 \frac{2}{5}$

Improper fraction



$\frac{7}{5}$

8

$$0.47 \text{ as a proper fraction} = \underline{\underline{\frac{47}{100}}}$$

$$\frac{38}{100} \text{ as a decimal} = \underline{\underline{0.38}}$$

9

Write these fractions as decimal equivalents

$$\frac{1}{2} = \underline{\underline{0.5}} \quad \frac{1}{10} = \underline{\underline{0.1}} \quad \frac{1}{4} = \underline{\underline{0.25}}$$

10

$$4 \times \frac{1}{3} = \underline{\underline{\frac{4}{3}}}$$



MY LAST SCORE?!

HAVE I BEAT THAT?!



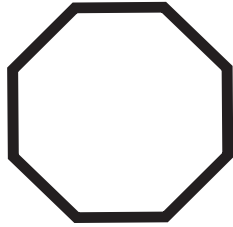
ANSWERS

SAFE 15

SET: 2

/10

1



Tick the correct statements:

8 sides



All internal angles are the same



All internal angles are different



3

How long from?

02:20

to

02:35

15 minutes

4

How long from?

08:20

to

09:05

45 minutes

2

$$3 \text{ L} = \underline{\underline{3000}} \text{ ml}$$

$$3 \frac{1}{2} \text{ L} = \underline{\underline{3500}} \text{ ml}$$

$$3.5 \text{ L} = \underline{\underline{3500}} \text{ ml}$$

5

How long from?

06:10

to

09:05

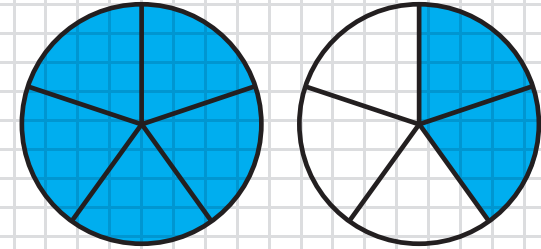
2 hours 55 minutes

6

$$\frac{1}{8} \text{ of } 48 = \underline{\underline{6}}$$

$$\frac{5}{8} \text{ of } 48 = \underline{\underline{30}}$$

7



Mixed number



$1 \frac{2}{5}$

Improper fraction



$\frac{7}{5}$

8

$$0.02 \text{ as a proper fraction} = \underline{\underline{\frac{2}{100}}}$$

$$\frac{72}{100} \text{ as a decimal} = \underline{\underline{0.72}}$$

9

Write these fractions as decimal equivalents

$$\frac{3}{4} = \underline{\underline{0.75}} \quad \frac{1}{10} = \underline{\underline{0.1}} \quad \frac{1}{2} = \underline{\underline{0.5}}$$

10

$$8 \times \frac{1}{4} = \underline{\underline{\frac{8}{4}}}$$



MY LAST SCORE?!

HAVE I BEAT THAT?!



ANSWERS

SAFE 15

SET: 3

/10

1



Tick the correct statements:

7 sides



All internal angles are the same



Is a pentagon



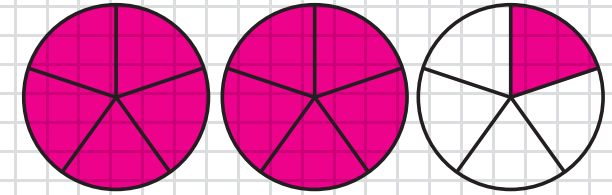
2

$$6 \text{ L} = \underline{6000} \text{ ml}$$

$$6 \frac{1}{4} \text{ L} = \underline{6250} \text{ ml}$$

$$6.5 \text{ L} = \underline{6500} \text{ ml}$$

7



Mixed number



$$2 \frac{1}{5}$$

Improper fraction



$$\frac{11}{5}$$

3

How long from?

09:30

to

09:50

20 minutes

5

How long from?

01:10

to

05:30

4 hours 20 minutes

4

How long from?

10:15

to

11:35

1 hour 20 minutes

6

$$\frac{1}{6} \text{ of } 36 = \mathbf{6}$$

$$\frac{4}{6} \text{ of } 36 = \mathbf{24}$$

8

$$0.62 \text{ as a proper fraction} = \frac{62}{100}$$

$$\frac{11}{100} \text{ as a decimal} = \mathbf{0.11}$$

9

Write these fractions as decimal equivalents

$$\frac{3}{4} = \mathbf{0.75} \quad \frac{1}{100} = \mathbf{0.01} \quad \frac{1}{10} = \mathbf{0.1}$$

10

$$5 \times \frac{1}{3} = \frac{5}{3}$$



MY LAST SCORE?!

HAVE I BEAT THAT?!



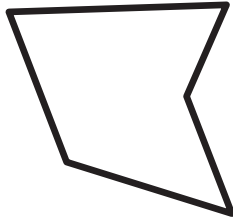
ANSWERS

SAFE 15

SET: 4

/10

1



Tick the correct statements:

5 sides

Is a regular polygon

Is a pentagon

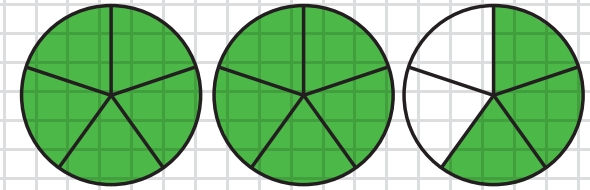
2

$$4 \text{ L} = \underline{4000} \text{ ml}$$

$$4 \frac{1}{2} \text{ L} = \underline{4500} \text{ ml}$$

$$4 \frac{3}{4} \text{ L} = \underline{4750} \text{ ml}$$

7



Mixed number



$$2 \frac{3}{5}$$

Improper fraction



$$\frac{13}{5}$$

3

How long from?

10:35

to

10:55

20 minutes

5

How long from?

03:15

to

06:45

3 hours 30 minutes

8

0.17 as a proper fraction = $\frac{17}{100}$

$\frac{19}{100}$ as a decimal = **0.19**

4

How long from?

06:30

to

07:30

1 hour

6

$$\frac{1}{7} \text{ of } 56 = \mathbf{8}$$

$$\frac{5}{7} \text{ of } 56 = \mathbf{40}$$

9

Write these fractions as decimal equivalents

$$\frac{1}{10} = \mathbf{0.1} \quad \frac{1}{2} = \mathbf{0.5} \quad \frac{3}{4} = \mathbf{0.75}$$

10

$$3 \times \frac{1}{2} = \frac{3}{2}$$

MY LAST SCORE?!

HAVE I BEAT THAT?!



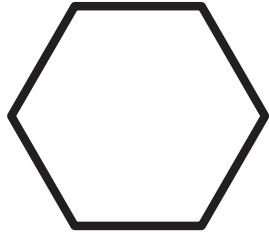
ANSWERS

SAFE 15

SET: 5

/10

1



Tick the correct statements:

6 sides

Is a hexagon

7 sides

3

How long from?

07:05

to

07:45

40 minutes

4

How long from?

08:20

to

09:15

55 minutes

2

$$8 \text{ L} = \underline{8000} \text{ ml}$$

$$8 \frac{1}{4} \text{ L} = \underline{8250} \text{ ml}$$

$$8 \frac{1}{2} \text{ L} = \underline{8500} \text{ ml}$$

5

How long from?

07:05

to

09:55

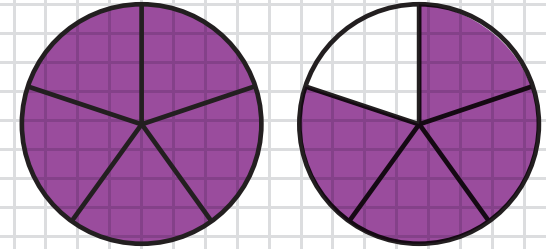
2 hours 50 minutes

6

$$\frac{1}{4} \text{ of } 32 = \underline{8}$$

$$\frac{3}{4} \text{ of } 32 = \underline{24}$$

7



Mixed number



$1 \frac{4}{5}$

Improper fraction



$\frac{9}{5}$

8

$$0.43 \text{ as a proper fraction} = \underline{\frac{43}{100}}$$

$$\frac{67}{100} \text{ as a decimal} = \underline{0.67}$$

9

Write these fractions as decimal equivalents

$$\frac{3}{4} = \underline{0.75} \quad \frac{1}{2} = \underline{0.5} \quad \frac{1}{10} = \underline{0.1}$$

10

$$9 \times \frac{1}{7} = \underline{\frac{9}{7}}$$



MY LAST SCORE?!

HAVE I BEAT THAT?!



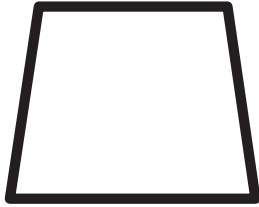
ANSWERS

SAFE 15

SET: 6

/10

1



Tick the correct statements:

- 4 sides
- Is a trapezium
- Is a hexagon

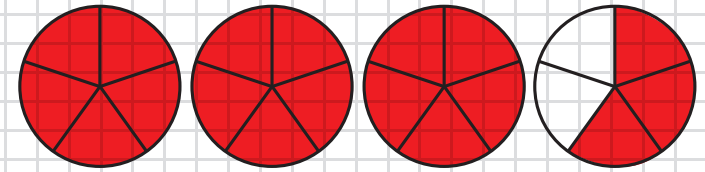
2

$$9 \text{ L} = \underline{9000} \text{ ml}$$

$$9 \frac{1}{2} \text{ L} = \underline{9500} \text{ ml}$$

$$9.5 \text{ L} = \underline{9500} \text{ ml}$$

7



Mixed number \rightarrow $3 \frac{3}{5}$

Improper fraction \rightarrow $\frac{18}{5}$

3

How long from?

04:15 to **04:20**

5 minutes

5

How long from?

03:25
to
07:15

3 hours 50 minutes

8

0.69 as a proper fraction = $\frac{69}{100}$

$\frac{96}{100}$ as a decimal = **0.96**

4

How long from?

06:10 to **07:25**

1 hour 15 minutes

6

$\frac{1}{7}$ of 49 = **7**

$\frac{5}{7}$ of 49 = **35**

9

Write these fractions as decimal equivalents

$\frac{1}{4} = \mathbf{0.25}$ $\frac{1}{10} = \mathbf{0.1}$ $\frac{1}{100} = \mathbf{0.01}$

10

$7 \times \frac{1}{5} = \frac{7}{5}$



MY LAST SCORE?!

HAVE I BEAT THAT?!



ANSWERS

SAFE 15

SET: 7

/10

1



Tick the correct statements:

- 8 sides
- Is a rhombus
- Is an octagon

3

How long from?

09:30 to **09:55**

25 minutes

4

How long from?

08:50 to **09:05**

15 minutes

2

$$3 \text{ L} = \underline{\underline{3000}} \text{ ml}$$

$$3 \frac{3}{4} \text{ L} = \underline{\underline{3750}} \text{ ml}$$

$$3.5 \text{ L} = \underline{\underline{3500}} \text{ ml}$$

5

How long from?

01:10

to

05:40

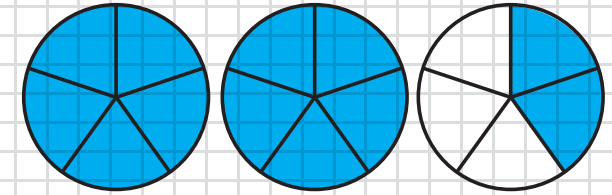
4 hours 30 minutes

6

$$\frac{1}{3} \text{ of } 27 = \mathbf{9}$$

$$\frac{2}{3} \text{ of } 27 = \mathbf{18}$$

7



Mixed number \rightarrow $\underline{\underline{2 \frac{2}{5}}}$

Improper fraction \rightarrow $\underline{\underline{\frac{12}{5}}}$

8

$$\mathbf{0.21} \text{ as a proper fraction} = \underline{\underline{\frac{21}{100}}}$$

$$\frac{37}{100} \text{ as a decimal} = \mathbf{0.37}$$

9

Write these fractions as decimal equivalents

$$\frac{3}{4} = \mathbf{0.75} \quad \frac{1}{2} = \mathbf{0.5} \quad \frac{1}{100} = \mathbf{0.01}$$

10

$$6 \times \frac{1}{4} = \underline{\underline{\frac{6}{4}}}$$



MY LAST SCORE?!

HAVE I BEAT THAT?!



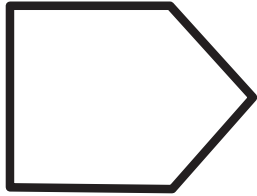
ANSWERS

SAFE 15

SET: 8

/10

1



Tick the correct statements:

- 5 sides
- Is a pentagon
- Is a square

3

How long from?

12:05

to

12:40

35 minutes

4

How long from?

04:30

to

05:35

1 hour 5 minutes

2

$$2 \text{ L} = \underline{2000} \text{ ml}$$

$$2 \frac{1}{4} \text{ L} = \underline{2250} \text{ ml}$$

$$2 \frac{1}{2} \text{ L} = \underline{2500} \text{ ml}$$

5

How long from?

09:05

to

11:10

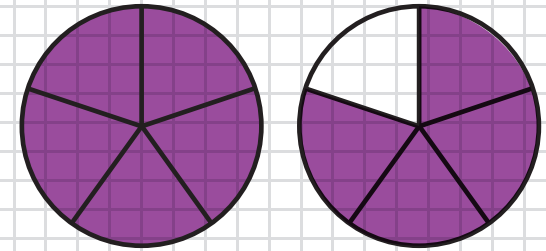
2 hours 5 minutes

6

$$\frac{1}{8} \text{ of } 56 = \underline{7}$$

$$\frac{3}{8} \text{ of } 56 = \underline{21}$$

7



Mixed number



$1 \frac{4}{5}$

Improper fraction



$\frac{9}{5}$

8

$$0.62 \text{ as a proper fraction} = \underline{\frac{62}{100}}$$

$$\frac{71}{100} \text{ as a decimal} = \underline{0.71}$$

9

Write these fractions as decimal equivalents

$$\frac{1}{2} = \underline{0.5} \quad \frac{1}{10} = \underline{0.1} \quad \frac{1}{100} = \underline{0.01}$$

10

$$7 \times \frac{1}{6} = \underline{\frac{7}{6}}$$



MY LAST SCORE?!

HAVE I BEAT THAT?!



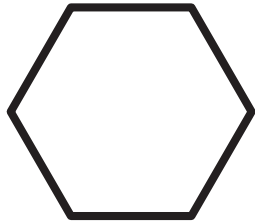
ANSWERS

SAFE 15

SET: 9

/10

1



Tick the correct statements:

6 sides

Is a hexagon

Is a triangle

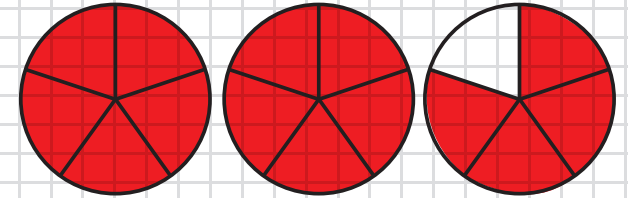
2

$$5 \text{ L} = \underline{5000} \text{ ml}$$

$$5 \frac{1}{2} \text{ L} = \underline{5500} \text{ ml}$$

$$5 \frac{3}{4} \text{ L} = \underline{5750} \text{ ml}$$

7



Mixed number \rightarrow $2 \frac{4}{5}$

Improper fraction \rightarrow $\frac{14}{5}$

3

How long from?

03:05

to

03:25

20 minutes

5

How long from?

04:55

to

06:10

1 hour 15 minutes

8

0.06 as a proper fraction = $\frac{6}{100}$

$\frac{9}{100}$ as a decimal = **0.09**

4

How long from?

08:05

to

09:20

1 hour 15 minutes

6

$\frac{1}{7}$ of 42 = **6**

$\frac{4}{7}$ of 42 = **24**

9

Write these fractions as decimal equivalents

$\frac{1}{100} = \mathbf{0.01}$ $\frac{3}{4} = \mathbf{0.75}$ $\frac{1}{4} = \mathbf{0.25}$

10

$8 \times \frac{1}{5} = \frac{8}{5}$



MY LAST SCORE?!

HAVE I BEAT THAT?!



ANSWERS

SAFE 15

SET: 10

/10

1



Tick the correct statements:

- 7 sides
- Is a heptagon
- Is an octagon

3

How long from?

05:10

to

05:40

30 minutes

4

How long from?

06:10

to

07:15

1 hour 5 minutes

2

$$4 \text{ L} = \underline{4000} \text{ ml}$$

$$4 \frac{1}{4} \text{ L} = \underline{4250} \text{ ml}$$

$$4 \frac{1}{2} \text{ L} = \underline{4500} \text{ ml}$$

5

How long from?

02:40

to

05:45

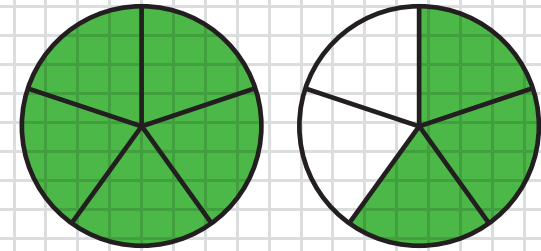
3 hours 5 minutes

6

$$\frac{1}{6} \text{ of } 36 = \underline{6}$$

$$\frac{5}{6} \text{ of } 36 = \underline{30}$$

7



Mixed number



$1 \frac{3}{5}$

Improper fraction



$\frac{8}{5}$

8

$$0.91 \text{ as a proper fraction} = \underline{\frac{91}{100}}$$

$$\frac{44}{100} \text{ as a decimal} = \underline{0.44}$$

9

Write these fractions as decimal equivalents

$$\frac{1}{10} = \underline{0.1} \quad \frac{1}{4} = \underline{0.25} \quad \frac{1}{2} = \underline{0.5}$$

10

$$6 \times \frac{1}{4} = \underline{\frac{6}{4}}$$



MY LAST SCORE?!

HAVE I BEAT THAT?!

