

Part of

**BEAT
THAT!**



Welsh Language

Big Maths

The **SAFE** Challenges!

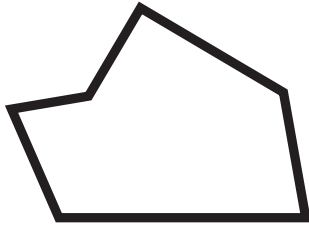
Thank you to Ysgol Gymraeg Treganna, Ysgol Gymraeg Glan Ceubal and Ysgol Morfa Rhianedd for their generous help in translating the SAFE Challenges to Welsh.



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



Ticiwch y rhai cywir?:

6 ochr Pob ongl mewnol yr un fath Pob ongl mewnol yn wahanol

3

Pa mor hir o?

04:05

i

04:40

4

Pa mor hir o?

03:40

i

04:25

2

4 L = _____ ml

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

4.5 L = _____ ml

5

Pa mor hir o?

03:20

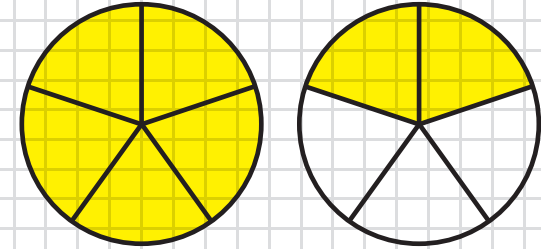
i

06:35

6

 $\frac{1}{9} \circ 63 =$ $\frac{4}{9} \circ 63 =$

7



Rhif cymysg → _____

Ffracsiwn pendrwm → _____

8

0.47 fel ffracsiwn =

 $\frac{38}{100}$ fel degolyn =

9

Ysgrifennwch y rhain fel degolion

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

10

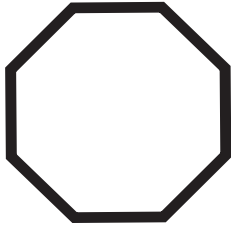
4 x $\frac{1}{3} =$

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



Ticiwch y rhai cywir?:

8 ochr Pob ongl mewnol yr un fath Pob ongl mewnol yn wahanol

3

Pa mor hir o?

02:20

i

02:35

4

Pa mor hir o?

08:20

i

09:05

2

3 L = _____ ml

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

3.5 L = _____ ml

5

Pa mor hir o?

06:10

i

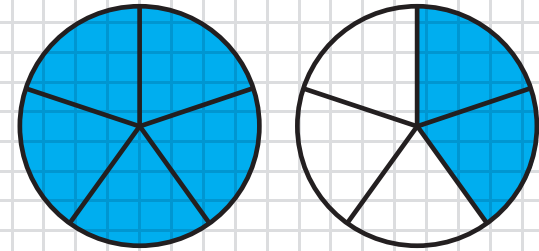
09:05

6

$\frac{1}{8}$ o 48 =

$\frac{5}{8}$ o 48 =

7



Rhif cymysg → _____

Ffracsiwn pendrwm → _____

8

0.02 fel ffracsiwn =

 $\frac{72}{100}$ fel degolyn =

9

Ysgrifennwch y rhain fel degolion

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

10

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



FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



Ticiwch y rhai cywir?:

7 ochr Pob ongl mewnol yr un fath Yn bentagon

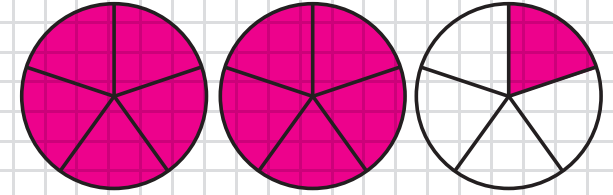
2

6 L = _____ ml

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

6.5 L = _____ ml

7



Rhif cymysg → _____

Ffracsiwn pendrwm → _____

3

Pa mor hir o?

09:30

i

09:50

5

Pa mor hir o?

01:10

i

05:30

8

0.62 fel ffracsiwn =

 $\frac{11}{100}$ fel degolyn =

4

Pa mor hir o?

10:15

i

11:35

6

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

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

9

Ysgrifennwch y rhain fel degolion

$\frac{3}{4} =$

$\frac{1}{100} =$

$\frac{1}{10} =$

10

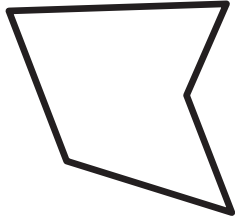
$5 \times \frac{1}{3} =$

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



Ticiwch y rhai cywir?:

5 ochr Yn siâp rheolaidd Yn bentagon

3

Pa mor hir o?

10:35

i

10:55

4

Pa mor hir o?

06:30

i

07:30

2

4 L = _____ ml

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

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

5

Pa mor hir o?

03:15

i

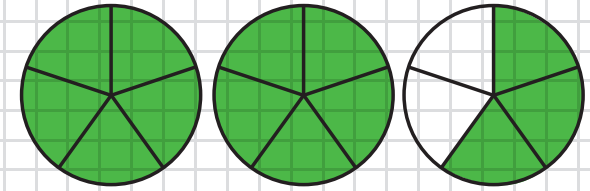
06:45

6

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

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

7

Rhif cymysg \rightarrow _____Ffracsiwn pendrwm \rightarrow _____

8

0.17 fel ffracsiwn =

 $\frac{19}{100}$ fel degolyn =

9

Ysgrifennwch y rhain fel degolion

$\frac{1}{10} =$

$\frac{1}{2} =$

$\frac{3}{4} =$

10

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

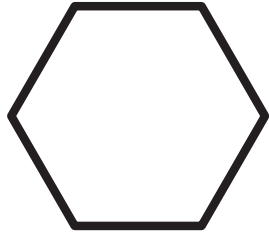


FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



Ticiwch y rhai cywir?:

6 ochr Yn hecsagon 7 ochr

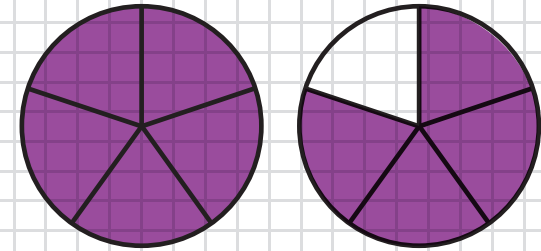
2

8 L = _____ ml

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

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

7



Rhif cymysg → _____

Ffracsiwn pendrwm → _____

3

Pa mor hir o?

07:05

i

07:45

5

Pa mor hir o?

07:05

i

09:55

8

0.43 fel ffracsiwn =

 $\frac{67}{100}$ fel degolyn =

4

Pa mor hir o?

08:20

i

09:15

6

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

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

9

Ysgrifennwch y rhain fel degolion

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

10

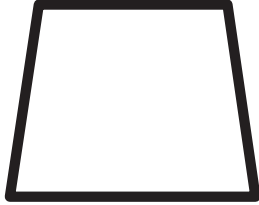
$9 \times \frac{1}{7} =$

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



Ticiwch y rhai cywir?:

4 ochr Yn drapesiwm Yn hecsagon

3

Pa mor hir o?

04:15

i

04:20

4

Pa mor hir o?

06:10

i

07:25

2

9 L = _____ ml

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

9.5 L = _____ ml

5

Pa mor hir o?

03:25

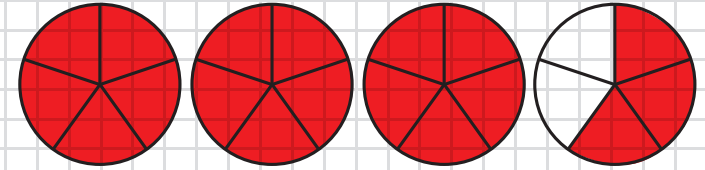
i

07:15

6

 $\frac{1}{7} \circ 49 =$ $\frac{5}{7} \circ 49 =$

7

Rhif cymysg \rightarrow _____Ffracsiwn pendrwm \rightarrow _____

8

0.69 fel ffracsiwn =

 $\frac{96}{100}$ fel degolyn =

9

Ysgrifennwch y rhain fel degolion

 $\frac{1}{4} =$ $\frac{1}{10} =$ $\frac{1}{100} =$

10

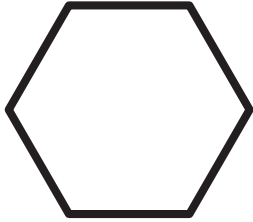
7 x $\frac{1}{5} =$ 

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



Ticiwch y rhai cywir?:

6 ochr Yn hecsagon Yn driongl

3

Pa mor hir o?

03:05

i

03:25

4

Pa mor hir o?

08:05

i

09:20

2

5 L = _____ ml

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

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

5

Pa mor hir o?

04:55

i

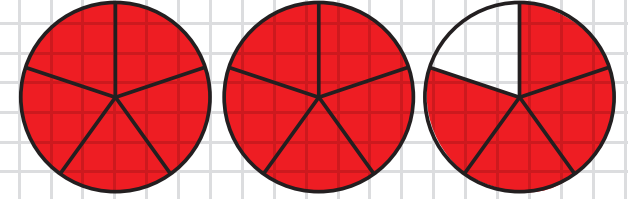
06:10

6

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

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

7



Rhif cymysg → _____

Ffracsiwn pendrwm → _____

8

0.06 fel ffracsiwn =

 $\frac{9}{100}$ fel degolyn =

9

Ysgrifennwch y rhain fel degolion

$\frac{1}{100} =$

$\frac{3}{4} =$

$\frac{1}{4} =$

10

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



FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



ATEBION

SAFE 15

SET: 1

/10

1



Ticiwch y rhai cywir?:

6 ochr

Pob ongl mewnol yr un fath

Pob ongl mewnol yn wahanol

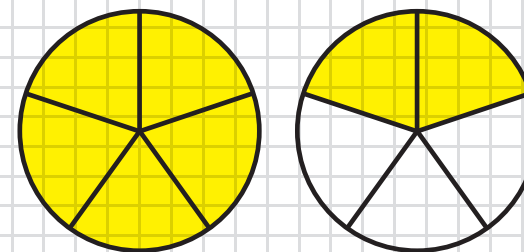
2

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

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

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

7



Rhif cymysg



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

Ffracsiwn pendrwm



$$\frac{7}{5}$$

3

Pa mor hir o?

04:05

i

04:40

35 munud

5

Pa mor hir o?

03:20

i

06:35

3 awr 15 munud

8

$$0.47 \text{ fel ffracsiwn} = \frac{47}{100}$$

$$\frac{38}{100} \text{ fel degolyn} = 0.38$$

4

Pa mor hir o?

03:40

i

04:25

45 munud

6

$$\frac{1}{9} \circ 63 = 7$$

$$\frac{4}{9} \circ 63 = 28$$

9

Ysgrifennwch y rhain fel degolion

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

10

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

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



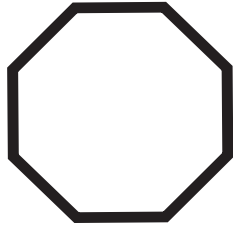
ATEBION

SAFE 15

SET: 2

/10

1



Ticiwch y rhai cywir?:

8 ochr

Pob ongl mewnol yr un fath

Pob ongl mewnol yn wahanol

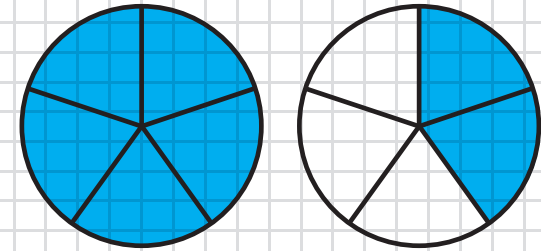
2

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

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

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

7



Rhif cymysg



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

Ffracsiwn pendrwm



$$\frac{7}{5}$$

3

Pa mor hir o?

02:20

i

02:35

15 munud

5

Pa mor hir o?

06:10

i

09:05

2 awr 55 munud

8

$$0.02 \text{ fel ffracsiwn} = \frac{2}{100}$$

$$\frac{72}{100} \text{ fel degolyn} = 0.72$$

9

Ysgrifennwch y rhain fel degolion

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

4

Pa mor hir o?

08:20

i

09:05

45 munud

6

$$\frac{1}{8} \circ 48 = 6$$

$$\frac{5}{8} \circ 48 = 30$$

10

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

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



ATEBION

SAFE 15

SET: 3

/10

1



Ticiwch y rhai cywir?:

7 ochr

Pob ongl mewnl yr un fath

Yn bentagon

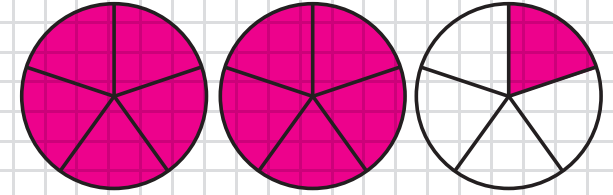
2

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

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

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

7



Rhif cymysg



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

Ffracsiwn pendrwm



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

3

Pa mor hir o?

09:30

i

09:50

20 munud

5

Pa mor hir o?

01:10

i

05:30

4 awr 20 munud

8

$$0.62 \text{ fel ffracsiwn} = \frac{62}{100}$$

$$\frac{11}{100} \text{ fel degolyn} = 0.11$$

9

Ysgrifennwch y rhain fel degolion

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

4

Pa mor hir o?

10:15

i

11:35

1 awr 20 munud

6

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

$$\frac{4}{6} \circ 36 = 24$$

10

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

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



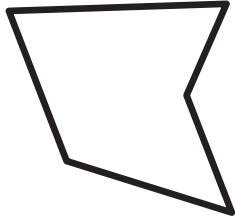
ATEBION

SAFE 15

SET: 4

/10

1



Ticiwch y rhai cywir?:

5 ochr

Yn siâp rheolaidd

Yn bentagon

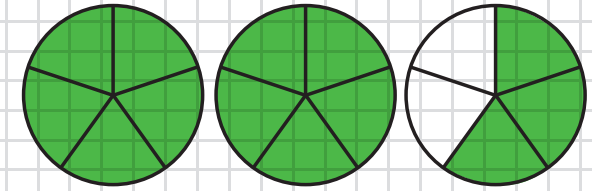
2

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

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

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

7



Rhif cymysg



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

Ffracsiwn pendrwm



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

3

Pa mor hir o?

10:35

i

10:55

20 munud

5

Pa mor hir o?

03:15

i

06:45

3 awr 30 munud

8

$$0.17 \text{ fel ffracsiwn} = \frac{17}{100}$$

$$\frac{19}{100} \text{ fel degolyn} = 0.19$$

9

Ysgrifennwch y rhain fel degolion

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

4

Pa mor hir o?

06:30

i

07:30

1 awr

6

$$\frac{1}{7} \circ 56 = 8$$

$$\frac{5}{7} \circ 56 = 40$$

10

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

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



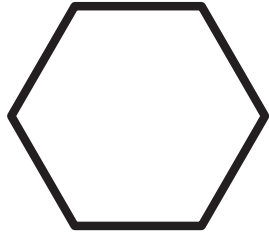
ATEBION

SAFE 15

SET: 5

/10

1



Ticiwch y rhai cywir?:

6 ochr

Yn hecsagon

7 ochr

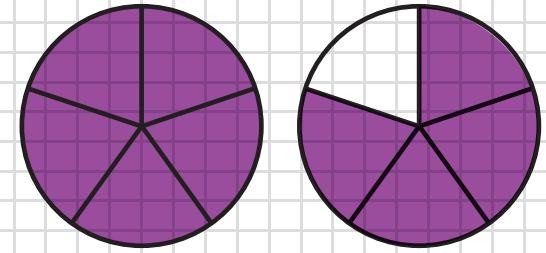
2

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

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

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

7



Rhif cymysg



$$1 \frac{4}{5}$$

Ffracsiwn pendrwm



$$\frac{9}{5}$$

3

Pa mor hir o?

07:05

i

07:45

40 munud

5

Pa mor hir o?

07:05

i

09:55

2 awr 50 munud

4

Pa mor hir o?

08:20

i

09:15

55 munud

6

$$\frac{1}{4} \circ 32 = 8$$

$$\frac{3}{4} \circ 32 = 24$$

8

$$0.43 \text{ fel ffracsiwn} = \frac{43}{100}$$

$$\frac{67}{100} \text{ fel degolyn} = 0.67$$

9

Ysgrifennwch y rhain fel degolion

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

10

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

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



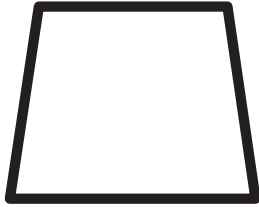
ATEBION

SAFE 15

SET: 6

/10

1



Ticiwch y rhai cywir?:

4 ochr

Yn drapesiwm

Yn hecsagon

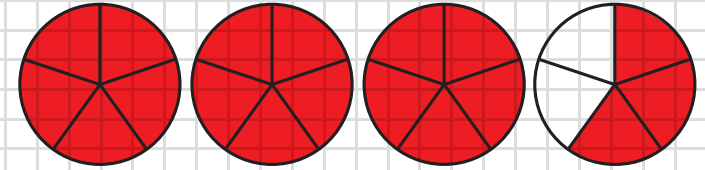
2

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

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

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

7



Rhif cymysg \rightarrow $3 \frac{3}{5}$

Ffracsiwn pendrwm \rightarrow $\frac{18}{5}$

3

Pa mor hir o?

04:15

i

04:20

5 munud

5

Pa mor hir o?

03:25

i

07:15

3 awr 50 munud

8

0.69 fel ffracsiwn = $\frac{69}{100}$

$\frac{96}{100}$ fel degolyn = **0.96**

4

Pa mor hir o?

06:10

i

07:25

1 awr 15 munud

6

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

$$\frac{5}{7} \circ 49 = 35$$

9

Ysgrifennwch y rhain fel degolion

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

10

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

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



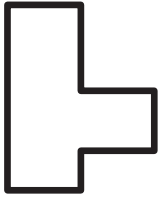
ATEBION

SAFE 15

SET: 7

/10

1



Ticiwch y rhai cywir?:

8 ochr

Yn rhombws

Yn octagon

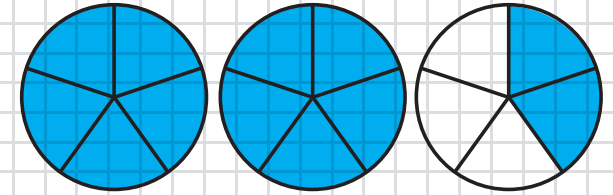
2

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

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

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

7



Rhif cymysg



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

Ffracsiwn pendrwm



$$\frac{12}{5}$$

3

Pa mor hir o?

09:30

i

09:55

25 munud

5

Pa mor hir o?

01:10

i

05:40

4 awr 30 munud

4

Pa mor hir o?

08:50

i

09:05

15 munud

6

$$\frac{1}{3} \circ 27 = \mathbf{9}$$

$$\frac{2}{3} \circ 27 = \mathbf{18}$$

9

Ysgrifennwch y rhain fel degolion

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

10

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

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



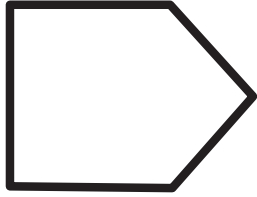
ATEBION

SAFE 15

SET: 8

/10

1



Ticiwch y rhai cywir?:

5 ochr

Yn bentagon

Yn sgwâr

3

Pa mor hir o?

12:05

i

12:40

35 munud

4

Pa mor hir o?

04:30

i

05:35

1 awr 5 munud

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

Pa mor hir o?

09:05

i

11:10

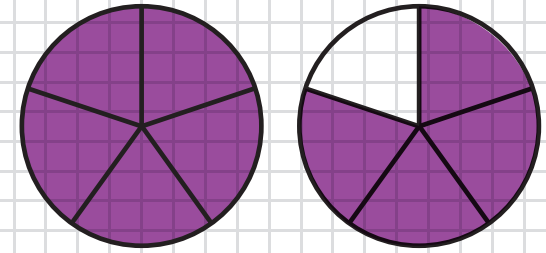
2 awr 5 munud

6

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

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

7



Rhif cymysg



$1 \frac{4}{5}$

Ffracsiwn pendrwm



$\frac{9}{5}$

8

$$0.62 \text{ fel ffracsiwn} = \frac{62}{100}$$

$$\frac{71}{100} \text{ fel degolyn} = \underline{0.71}$$

9

Ysgrifennwch y rhain fel degolion

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

10

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

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



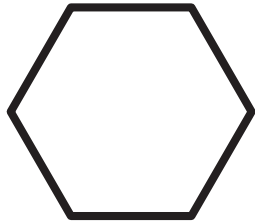
ATEBION

SAFE 15

SET: 9

/10

1



Ticiwch y rhai cywir?:

6 ochr

Yn hecsagon

Yn driongl

3

Pa mor hir o?

03:05

i

03:25

20 munud

4

Pa mor hir o?

08:05

i

09:20

1 awr 15 munud

2

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

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

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

5

Pa mor hir o?

04:55

i

06:10

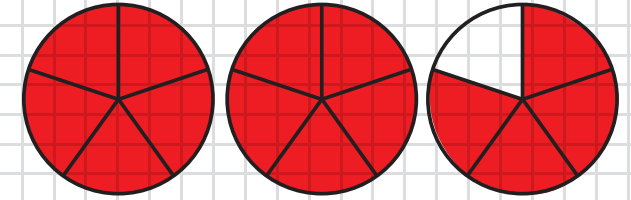
1 awr 15 munud

6

$$\frac{1}{7} \circ 42 = \mathbf{6}$$

$$\frac{4}{7} \circ 42 = \mathbf{24}$$

7



Rhif cymysg



$2 \frac{4}{5}$

Ffracsiwn pendrwm



$\frac{14}{5}$

8

$$0.06 \text{ fel ffracsiwn} = \frac{6}{100}$$

$$\frac{9}{100} \text{ fel degolyn} = \mathbf{0.09}$$

9

Ysgrifennwch y rhain fel degolion

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

10

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

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



ATEBION

SAFE 15

SET: 10

/10

1



Ticiwch y rhai cywir?:

7 ochr

Yn heptagon

Yn octagon

3

Pa mor hir o?

05:10

i

05:40

30 munud

4

Pa mor hir o?

06:10

i

07:15

1 awr 5 munud

2

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

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

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

5

Pa mor hir o?

02:40

i

05:45

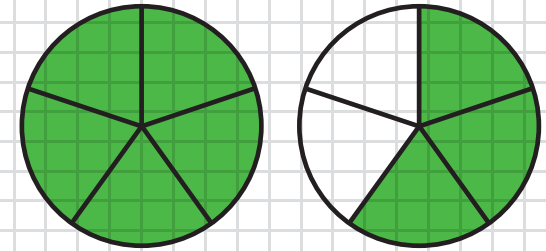
3 awr 5 munud

6

$$\frac{1}{6} \circ 36 = \mathbf{6}$$

$$\frac{5}{6} \circ 36 = \mathbf{30}$$

7



Rhif cymysg



$1 \frac{3}{5}$

Ffracsiwn pendrwm



$\frac{8}{5}$

8

$$\mathbf{0.91} \text{ fel ffracsiwn} = \frac{\mathbf{91}}{\mathbf{100}}$$

$$\frac{\mathbf{44}}{\mathbf{100}} \text{ fel degolyn} = \mathbf{0.44}$$

9

Ysgrifennwch y rhain fel degolion

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

10

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

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!

