

Part of

**BEAT
THAT!**



Welsh Language

The **Big** **Maths**



SAFE

Challenges!

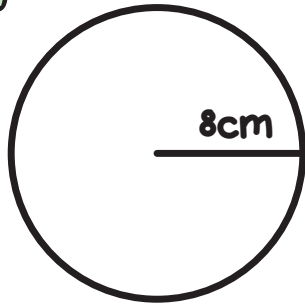
Thank you to Ysgol Gymraeg Treganna, Ysgol Gymraeg Glan Ceubal and Ysgol Morfa Rhianedd for their generous help in translating the SAFE Challenges to Welsh.



Big Maths Beat That!: Teacher Notes

SAFE Challenge 19			
	Step Location in the SAFE framework		Title of Step
	Progress Drive	Step No.	
Q1	Amounts: Amounts of Distance	30	I can identify and measure the diameter of a circle
		31	I can identify and measure the radius of a circle
Q2	Amounts: Amounts of Turn	32	I know 180° = sum of interior angles in every triangle (and can therefore find missing angles)
Q3	Amounts: Amounts of Turn	33	I know 360° = sum of interior angles in every quadrilateral and every circle (and can therefore find missing angles)
Q4	Fractions: Fractions of a Set	14	I can tell you the total if I know the value of a fraction
Q5	Fractions: Fractions: Calculation	18	I can use common factors to simplify
Q6	Fractions: Fractions: Calculation	20	I can multiply one fraction by another
Q7	Fractions: Fractions: Percentages	5	I can find percentages of convenient numbers
Q8	Fractions: Fractions: Ratio	11	I can maintain a ratio through differing totals
Q9	Explaining Data: Pie Charts	4	I can find missing angles, given the proportional value and the total value
		5	I can find missing proportional values given the angle and the total value
Q10	Explaining Data: Averages	6	I can find the mean value for a set of data

1

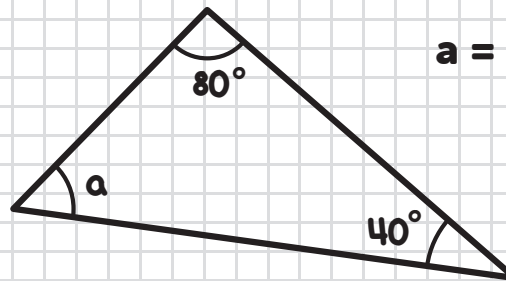


Radiws =
_____ cm

Diamedr =
_____ cm

2

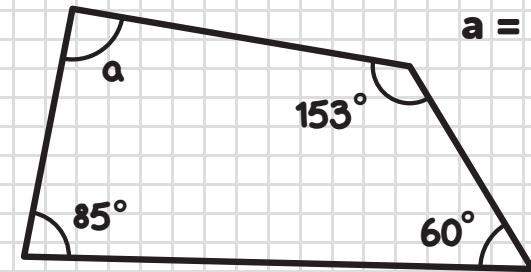
Cyfrifwch ongl 'a'



a =

3

Cyfrifwch ongl 'a'



a =

4

$$\frac{2}{3} \circ \underline{\hspace{2cm}} = 18$$

5

Symleiddiwch y ffraciwn

$$\frac{18}{42} =$$

6

$$\frac{5}{6} \times \frac{2}{3} =$$

7

$$22\% \circ 300 =$$

8

Mae losin coch a gwyrdd wedi cymysgu ar y gymhareb **2:3**.

Mae **20** darn o losin.

Faint sy'n goch?

9

Gofynnwn ni beth oedd hoff liw 200 o blant. 50 ddewisodd coch. Pa ongl fyddai hyn ar Siart Cylch?

10

15, 25, 25, 16, 19

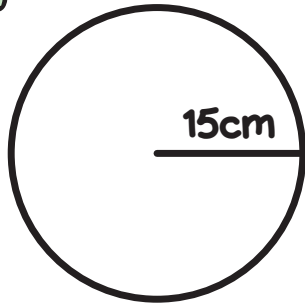
Cymedr → _____



FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!

1



Radiws =

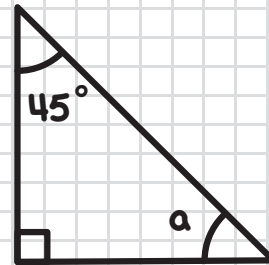
_____ cm

Diamedr =

_____ cm

2

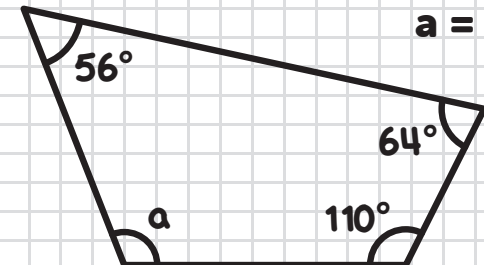
Cyfrifwch ongl 'a'



a =

3

Cyfrifwch ongl 'a'



a =

4

$$\frac{1}{4} \circ \underline{\hspace{2cm}} = 6$$

5

Symleiddiwch y ffraciwn

$$\frac{15}{50} =$$

6

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

7

$$15\% \circ 200 =$$

8

Mae peli glas a melyn wedi eu cymysgu ar y gymhareb **2:1**.

Mae **15** pêl.

Faint sy'n las?

9

Gofynnion ni beth oedd hoff chwaraeon 150 o blant. 75 ddewisodd tenis. Pa ongl fyddai hyn ar Siart Cylch?

10

5, 9, 11, 2, 18

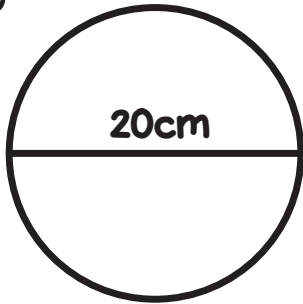
Cymedr → _____

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1

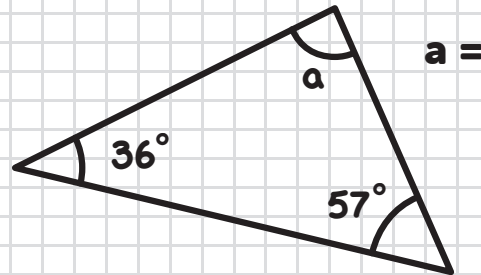


Radiws =
_____ cm

Diamedr =
_____ cm

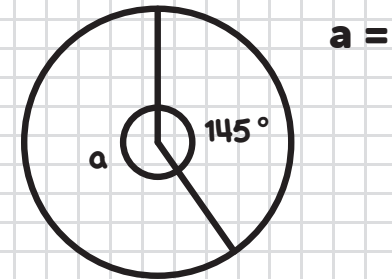
2

Cyfrifwch ongl 'a'



3

Cyfrifwch ongl 'a'



4

$$\frac{2}{5} \circ \underline{\hspace{2cm}} = 12$$

5

Symleiddiwch y ffraciwn

$$\frac{27}{81} =$$

6

$$\frac{2}{7} \times \frac{7}{9} =$$

7

$$55\% \circ 240 =$$

8

Mae sanau porffor a glas ar y gymhareb **4:2**.

Mae **36** hosan.

Faint sy'n borffor?

9

Gofynnwn ni beth oedd hoff anifail anwes 100 o blant. Ar Siart Cylch, 90° sy'n dangos y nifer a ddewisodd cathod. Sawl plentyn oedd yn hoffi cathod?

10

16, 1, 12, 4, 9, 6

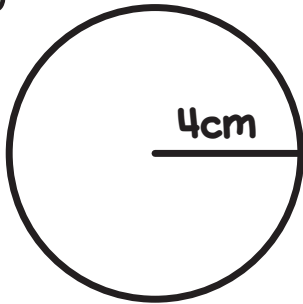
Cymedr → _____

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



Radiws =

_____ cm

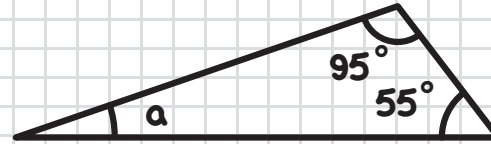
Diamedr =

_____ cm

2

Cyfrifwch ongl 'a'

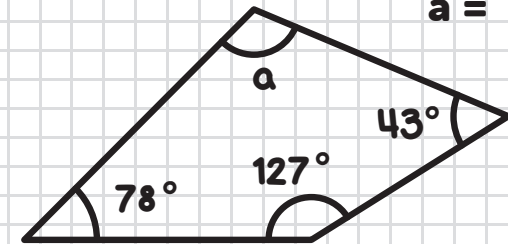
a =



3

Cyfrifwch ongl 'a'

a =



4

$$\frac{3}{6} \circ \underline{\hspace{2cm}} = 42$$

5

Symleiddiwch y ffraciwn

$$\frac{14}{35} =$$

6

$$\frac{1}{3} \times \frac{5}{8} =$$

7

$$70\% \circ 210 =$$

8

Mae balwnau gwyrdd a choch wedi eu cymysgu ar y gymhareb **3:1**.

Mae **40** balw'n.

Faint sy'n goch?

9

Gofynnwn ni beth oedd hoff ddiwedd 99 o blant. Ar Siart Cylch, 240° sy'n dangos y nifer a ddewisodd llaeth. Sawl plentyn oedd yn hoffi llaeth?

10

2, 11, 1, 14, 5, 3

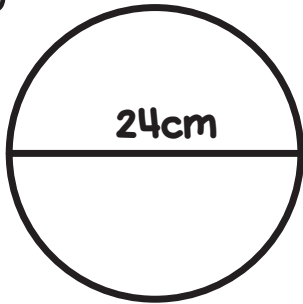
Cymedr → _____

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



Radiws =

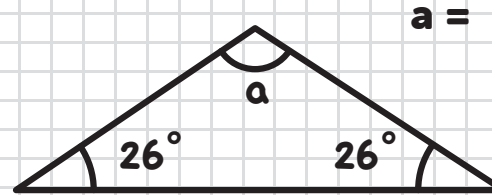
_____ cm

Diamedr =

_____ cm

2

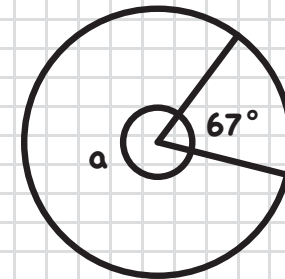
Cyfrifwch ongl 'a'



a =

3

Cyfrifwch ongl 'a'



a =

4

$$\frac{3}{8} \circ \underline{\hspace{2cm}} = 24$$

5

Symleiddiwch y ffraciwn

$$\frac{20}{25} =$$

6

$$\frac{2}{5} \times \frac{3}{9} =$$

7

$$25\% \circ 160 =$$

8

Mae cownteri du a gwyn ar y gymhareb **5:3**.

Mae **64** cownter.

Faint sy'n wyn?

9

Gofynnion ni beth oedd hoff fwyd 120 o blant. 90 ddewisodd pítsa. Pa ongl fyddai hyn ar Siart Cylch?

10

9, 10, 9, 7, 15

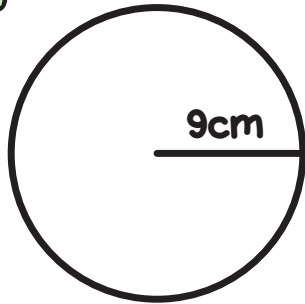
Cymedr → _____

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



Radiws =

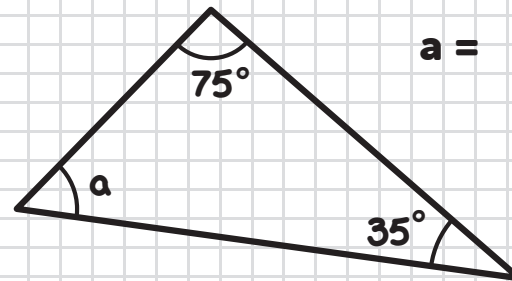
_____ cm

Diamedr =

_____ cm

2

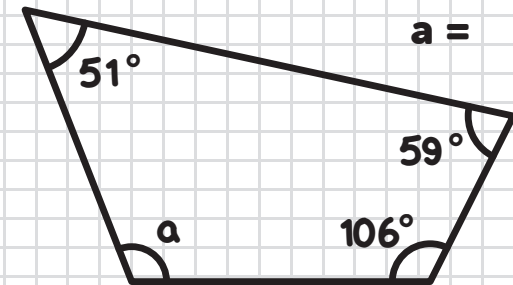
Cyfrifwch ongl 'a'



a =

3

Cyfrifwch ongl 'a'



a =

4

$$\frac{3}{4} \circ \underline{\hspace{2cm}} = 30$$

5

Symleiddiwch y ffraciwn

$$\frac{45}{60} =$$

6

$$\frac{1}{4} \times \frac{6}{7} =$$

7

$$12\% \circ 150 =$$

8

Mae losin gwyrdd a choch wedi eu cymysgu ar y gymhareb **3:2**.

Mae **25** o losin.

Faint sy'n wyrdd?

9

Gofynnion ni beth oedd hoff gêm 250 o blant. 125 ddewisodd Lego. Pa ongl fyddai hyn ar Siart Cylch?

10

2, 2, 3, 7, 1

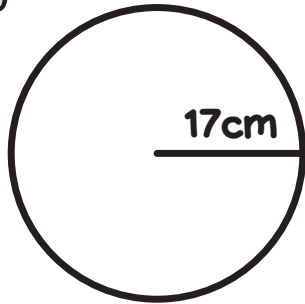
Cymedr → _____

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



Radiws =

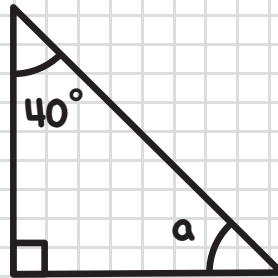
_____ cm

Diamedr =

_____ cm

2

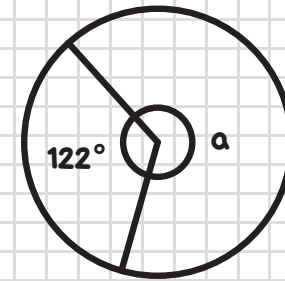
Cyfrifwch ongl 'a'



a =

3

Cyfrifwch ongl 'a'



a =

4

$$\frac{5}{6} \circ \underline{\hspace{2cm}} = 35$$

5

Symleiddiwch y ffraciwn

$$\frac{35}{42} =$$

6

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

7

$$51\% \circ 100 =$$

8

Mae peli coch a glas wedi eu cymysgu ar y gymhareb **5:3**.

Mae **56** pêl.

Faint sy'n las?

9

Gofynnwn ni beth oedd hoff liw 200 o blant. Ar Siart Cylch, 270° sy'n dangos y nifer a ddewisodd gwyrdd. Sawl plentyn oedd yn hoffi gwyrdd?

10

11, 12, 10, 8, 4

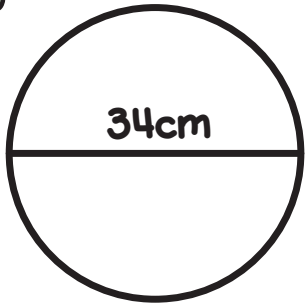
Cymedr → _____

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!

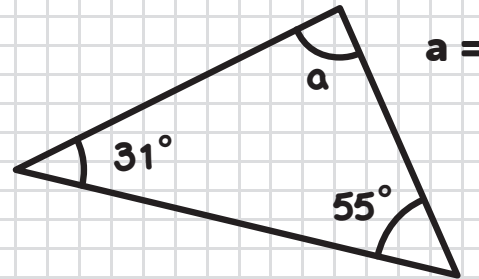


1

Radiws =
_____ cmDiamedr =
_____ cm

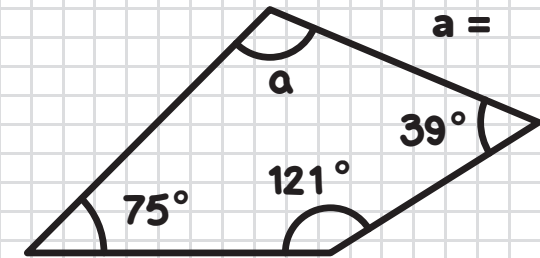
2

Cyfrifwch ongl 'a'



3

Cyfrifwch ongl 'a'



4

$$\frac{1}{5} \circ \underline{\hspace{2cm}} = 5$$

5

Symleiddiwch y
ffracsiwn

$$\frac{9}{27} =$$

6

$$\frac{3}{7} \times \frac{2}{8} =$$

7

$$25\% \circ 96 =$$

8

Mae peli melyn a gwyrdd wedi eu
cymysgu i'r gymhareb **4:1**.

Mae cyfanswm o **35** pêl.

Sawl pêl sy'n wyrdd?

9

Gofynnwn ni beth oedd hoff fwyd 66
o blant. 44 ddewisodd pasta. Pa ongl
fyddai hyn ar Siart Cylch?

10

15, 22, 16, 4, 8

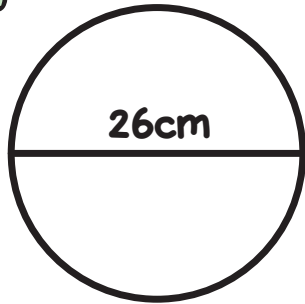
Cymedr → _____

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



Radiws =

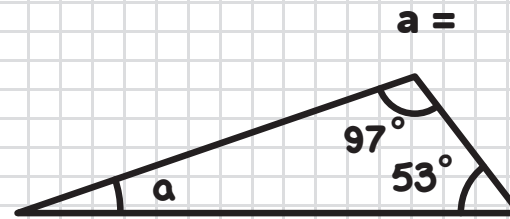
_____ cm

Diamedr =

_____ cm

2

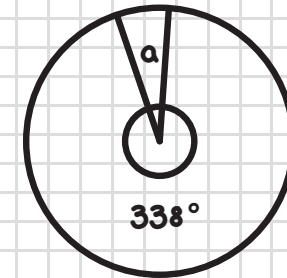
Cyfrifwch ongl 'a'



a =

3

Cyfrifwch ongl 'a'



a =

4

$$\frac{2}{7} \circ \underline{\hspace{2cm}} = 14$$

5

Symleiddiwch y ffraciwn

$$\frac{9}{24} =$$

6

$$\frac{6}{8} \times \frac{7}{9} =$$

7

$$12\% \circ 100 =$$

8

Mae gemwaith porffor a glas mewn cymhareb **2:3**.

Mae **50** ohonynt i gyd.

Sawl un sydd yn borffor?

9

Gofynnwch ni beth oedd hoff chwaraeon 160 o blant. 40 ddewisodd criced. Pa ongl fyddai hyn ar Siart Cylch?

10

1, 6, 9, 13, 16

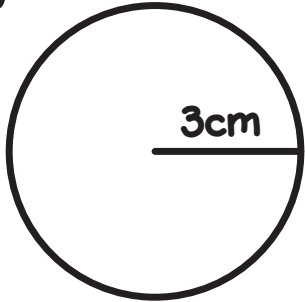
Cymedr → _____

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



Radiws =

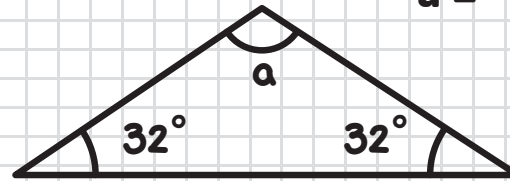
_____ cm

Diamedr =

_____ cm

2

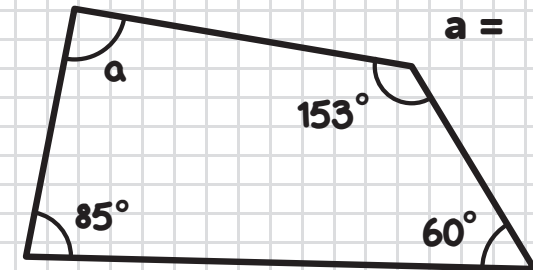
Cyfrifwch ongl 'a'



a =

3

Cyfrifwch ongl 'a'



a =

4

$$\frac{7}{9} \circ \underline{\hspace{2cm}} = 14$$

5

Symleiddiwch y ffraciwn

$$\frac{36}{63} =$$

6

$$\frac{2}{6} \times \frac{5}{9} =$$

7

$$52\% \circ 200 =$$

8

Mae peli gwyrdd a melyn wedi eu cymysgu i'r gymhareb **2:1**.

Mae cyfanswm o **60** pêl.

Sawl pêl sy'n felyn?

9

Gofynnwn ni beth oedd hoff anifail anwes 140 o blant. Ar Siart Cylch, 180° sy'n dangos y nifer a ddewisodd cŵn. Sawl plentyn oedd yn hoffi cŵn?

10

6, 8, 10, 11, 15

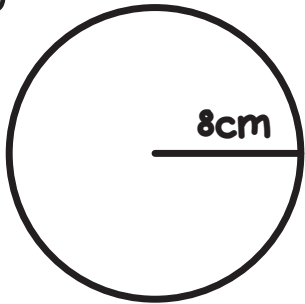
Cymedr → _____

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1

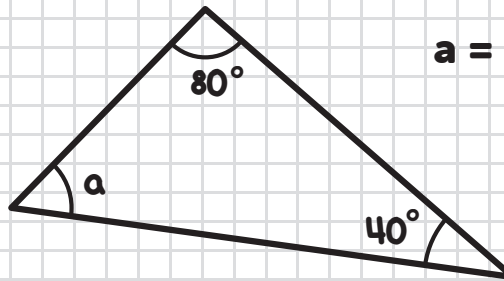


Radiws = **8** cm

Diamedr = **16** cm

2

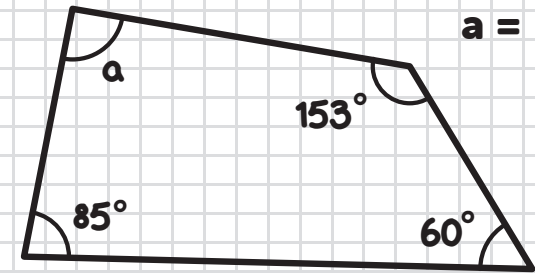
Cyfrifwch ongl 'a'



a = **60°**

3

Cyfrifwch ongl 'a'



a = **62°**

4

$$\frac{2}{3} \circ \underline{\quad} = 18$$

5

Symleiddiwch y ffracsiwn

$$\frac{18}{42} = \frac{3}{7}$$

6

$$\frac{5}{6} \times \frac{2}{3} = \frac{10}{18}$$

7

$$22\% \circ 300 =$$

66

8

Mae losin coch a gwyrdd wedi cymysgu ar y gymhareb **2:3**.

Mae **20** darn o losin.

Faint sy'n goch?

8

9

Gofynnwn ni beth oedd hoff liw 200 o blant. 50 ddewisodd coch. Pa ongl fyddai hyn ar Siart Cylch?

90°

10

15, 25, 25, 16, 19

Cymedr → **20**

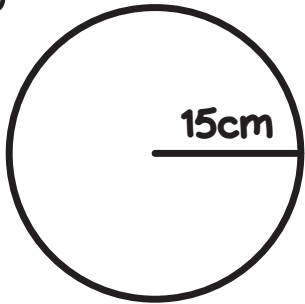


FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1

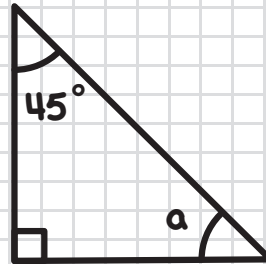


Radiws = **15** cm

Diamedr = **30** cm

2

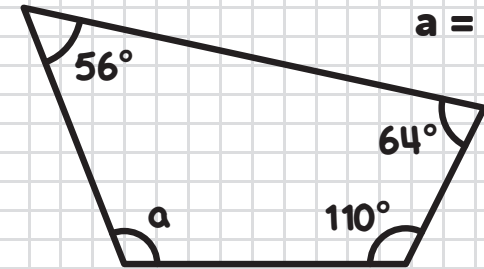
Cyfrifwch ongl 'a'



a = **45°**

3

Cyfrifwch ongl 'a'



a = **130°**

4

$$\frac{1}{4} \circ \underline{\quad} = 6$$

5

Symleiddiwch y ffraciwn

$$\frac{15}{50} = \frac{3}{10}$$

6

$$\frac{4}{6} \times \frac{1}{4} = \frac{4}{24}$$

7

$$15\% \circ 200 = \underline{\quad}$$

30

8

Mae peli glas a melyn wedi eu cymysgu ar y gymhareb **2:1**.

Mae **15** pêl.

Faint sy'n las?

10

9

Gofynnion ni beth oedd hoff chwaraeon 150 o blant. 75 ddewisodd tenis. Pa ongl fyddai hyn ar Siart Cylch?

180°

10

5, 9, 11, 2, 18

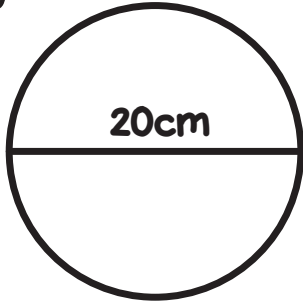
Cymedr → **9**

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1

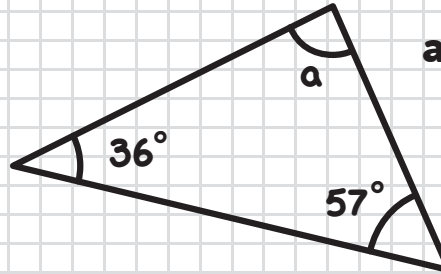


Radiws = **10** cm

Diamedr = **20** cm

2

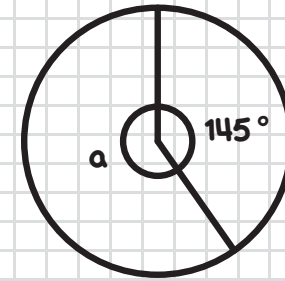
Cyfrifwch ongl 'a'



a = **87°**

3

Cyfrifwch ongl 'a'



a = **215°**

4

$$\frac{2}{5} \circ \underline{\quad} = 12$$

5

Symleiddiwch y ffracsiwn

$$\frac{27}{81} = \frac{1}{3}$$

6

$$\frac{2}{7} \times \frac{7}{9} = \frac{14}{63}$$

7

$$55\% \circ 240 = \underline{\quad} = 132$$

8

Mae sanau porffor a glas ar y gymhareb **4:2**.

Mae **36** hosan.

Faint sy'n borffor?

24

9

Gofynnwn ni beth oedd hoff anifail anwes 100 o blant. Ar Siart Cylch, 90° sy'n dangos y nifer a ddewisodd cathod. Sawl plentyn oedd yn hoffi cathod?

25

10

16, 1, 12, 4, 9, 6

Cymedr → **8**

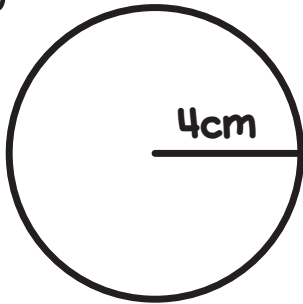


FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1



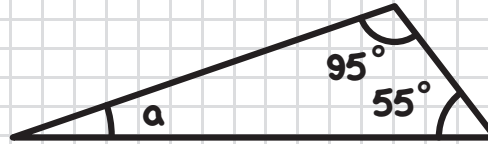
Radiws =
4 cm

Diamedr =
8 cm

2

Cyfrifwch ongl 'a'

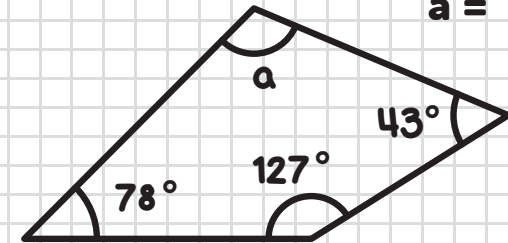
a = **30°**



3

Cyfrifwch ongl 'a'

a = **112°**



4

$$\frac{3}{6} \circ \underline{84} = 42$$

5

Symleiddiwch y ffraciwn

$$\frac{14}{35} = \frac{2}{5}$$

6

$$\frac{1}{3} \times \frac{5}{8} = \frac{5}{24}$$

7

$$70\% \circ 210 =$$

$$\underline{147}$$

8

Mae balwnau gwyrdd a choch wedi eu cymysgu ar y gymhareb **3:1**.

Mae **40** balwn.

Faint sy'n goch?

10

9

Gofynnwn ni beth oedd hoff ddiad 99 o blant. Ar Siart Cylch, 240° sy'n dangos y nifer a ddewisodd llaeth. Sawl plentyn oedd yn hoffi llaeth?

66

10

2, 11, 1, 14, 5, 3

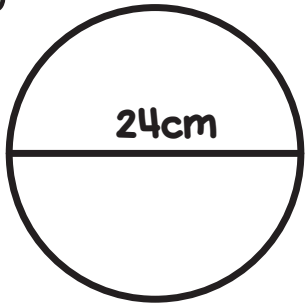
Cymedr → **6**

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1

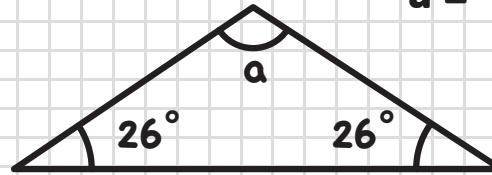


Radiws =
12 cm

Diamedr =
24 cm

2

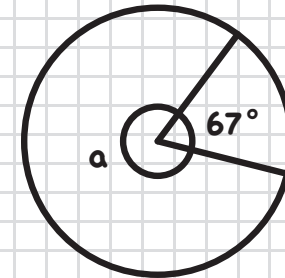
Cyfrifwch ongl 'a'



a = **128°**

3

Cyfrifwch ongl 'a'



a = **293°**

4

$$\frac{3}{8} \circ \underline{\quad} = 24$$

5

Symleiddiwch y ffraciwn

$$\frac{20}{25} = \frac{4}{5}$$

6

$$\frac{2}{5} \times \frac{3}{9} = \frac{6}{45}$$

7

$$25\% \circ 160 =$$

40

8

Mae cownteri du a gwyn ar y gymhareb **5:3**.

Mae **64** cownter.

Faint sy'n wyn?

24

9

Gofynnwn ni beth oedd hoff fwyd 120 o blant. 90 ddewisodd pítsa. Pa ongl fyddai hyn ar Siart Cylch?

270°

10

9, 10, 9, 7, 15

Cymedr → **10**

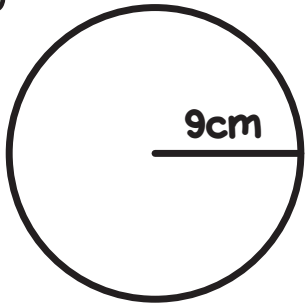


FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1

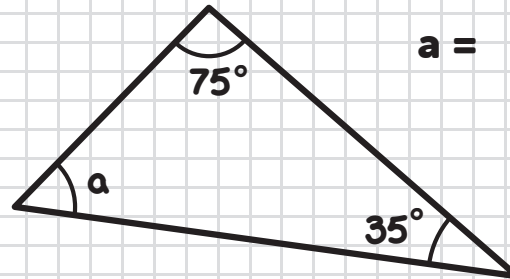


Radiws = 9 cm

Diamedr = 18 cm

2

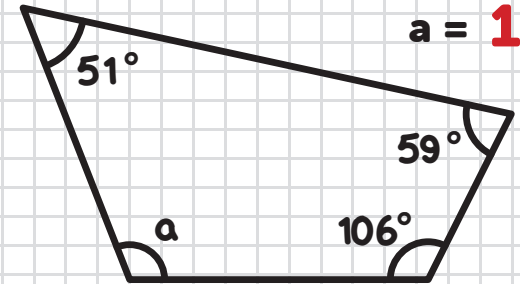
Cyfrifwch ongl 'a'



a = **70°**

3

Cyfrifwch ongl 'a'



a = **144°**

4

$$\frac{3}{4} \circ \underline{40} = 30$$

5

Symleiddiwch y ffraciwn

$$\frac{45}{60} = \frac{3}{4}$$

6

$$\frac{1}{4} \times \frac{6}{7} = \frac{6}{28}$$

7

$$12\% \circ 150 = \underline{18}$$

8

Mae losin gwyrdd a choch wedi eu cymysgu ar y gymhareb **3:2**.

Mae **25** o losin.

Faint sy'n wyrdd?

15

9

Gofynnwn ni beth oedd hoff gêm 250 o blant. 125 ddewisodd Lego. Pa ongl fyddai hyn ar Siart Cylch?

180°

10

2, 2, 3, 7, 1

Cymedr → 3

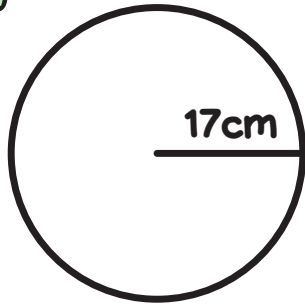


FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1

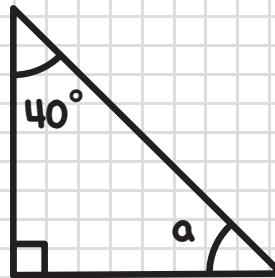


Radiws = 17 cm

Diamedr = 34 cm

2

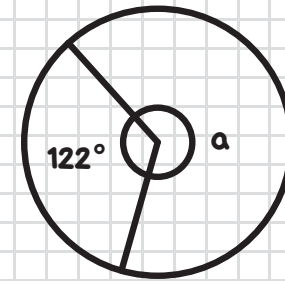
Cyfrifwch ongl 'a'



a = **50°**

3

Cyfrifwch ongl 'a'



a = **238°**

4

$$\frac{5}{6} \circ \underline{42} = 35$$

5

Symleiddiwch y ffraciwn

$$\frac{35}{42} = \frac{5}{6}$$

6

$$\frac{1}{3} \times \frac{3}{5} = \frac{3}{15}$$

7

$$51\% \circ 100 = \underline{51}$$

8

Mae peli coch a glas wedi eu cymysgu ar y gymhareb **5:3**.

Mae **56** pêl.

Faint sy'n las?

21

9

Gofynnwn ni beth oedd hoff liw 200 o blant. Ar Siart Cylch, 270° sy'n dangos y nifer a ddewisodd gwyrdd. Sawl plentyn oedd yn hoffi gwyrdd?

150

10

11, 12, 10, 8, 4

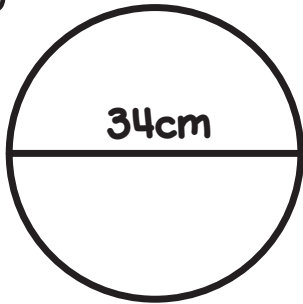
Cymedr → 9

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1

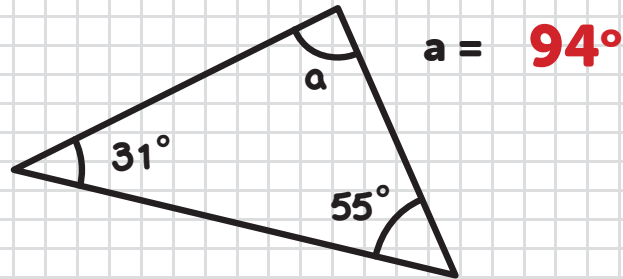


Radiws = 17 cm

Diamedr = 34 cm

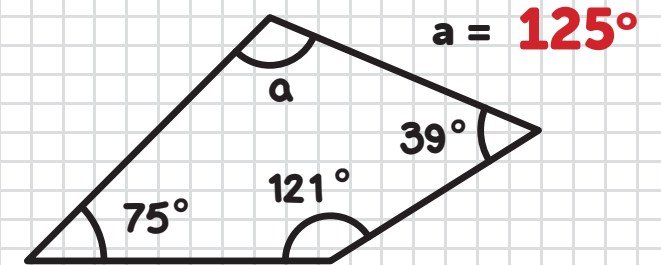
2

Cyfrifwch ongl 'a'



3

Cyfrifwch ongl 'a'



4

$$\frac{1}{5} \circ \underline{25} = 5$$

5

Symleiddiwch y ffraciwn

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

6

$$\frac{3}{7} \times \frac{2}{8} = \frac{6}{56}$$

7

$$25\% \circ 96 = \underline{24}$$

8

Mae peli melyn a gwyrdd wedi eu cymysgu i'r gymhareb **4:1**.

Mae cyfanswm o **35** pêl.

Sawl pêl sy'n wyrdd?

7

9

Gofynnwn ni beth oedd hoff fwyd 66 o blant. 44 ddewisodd pasta. Pa ongl fyddai hyn ar Siart Cylch?

240°

10

15, 22, 16, 4, 8

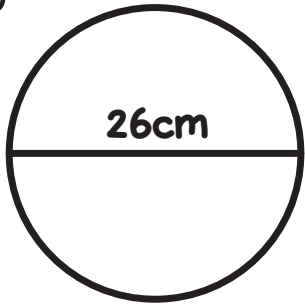
Cymedr → 13

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1

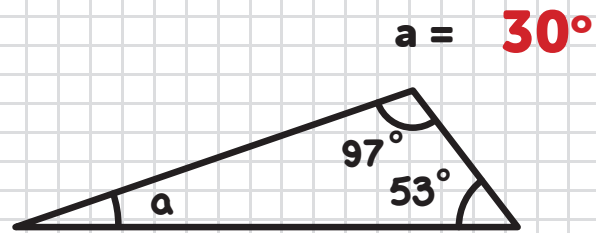


Radiws =
13 cm

Diamedr =
26 cm

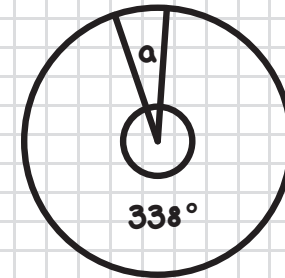
2

Cyfrifwch ongl 'a'



3

Cyfrifwch ongl 'a'



a = 22°

4

$$\frac{2}{7} \circ \underline{\quad} = 14$$

5

Symleiddiwch y ffraciwn

$$\frac{9}{24} = \frac{3}{8}$$

6

$$\frac{6}{8} \times \frac{7}{9} = \frac{42}{72}$$

7

$$12\% \circ 100 =$$

12

8

Mae gemwaith porffor a glas mewn cymhareb **2:3**.

Mae **50** ohonynt i gyd.

Sawl un sydd yn borffor?

20

9

Gofynnwch ni beth oedd hoff chwaraeon 160 o blant. 40 ddewisodd criced. Pa ongl fyddai hyn ar Siart Cylch?

90°

10

1, 6, 9, 13, 16

Cymedr → **9**

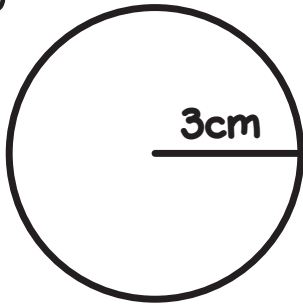


FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!



1

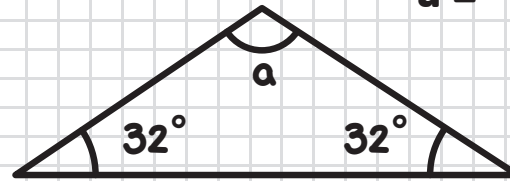


Radiws = **3** cm

Diamedr = **6** cm

2

Cyfrifwch ongl 'a'



a = **116°**

3

Cyfrifwch ongl 'a'



a = **62°**

4

$$\frac{7}{9} \circ \underline{\mathbf{18}} = \mathbf{14}$$

5

Symleiddiwch y ffraciwn

$$\frac{36}{63} = \frac{\mathbf{4}}{\mathbf{7}}$$

6

$$\frac{2}{6} \times \frac{5}{9} = \frac{\mathbf{10}}{\mathbf{54}}$$

7

$$\mathbf{52\%} \circ \mathbf{200} = \mathbf{104}$$

8

Mae peli gwyrdd a melyn wedi eu cymysgu i'r gymhareb **2:1**.

Mae cyfanswm o **60** pêl.

Sawl pêl sy'n felyn?

20

9

Gofynnwn ni beth oedd hoff anifail anwes 140 o blant. Ar Siart Cylch, 180° sy'n dangos y nifer a ddewisodd cŵn. Sawl plentyn oedd yn hoffi cŵn?

70

10

6, 8, 10, 11, 15

Cymedr → **10**

FY SGÔR DDIWETHAF?!

YDW I WEDI EI GURO?!

