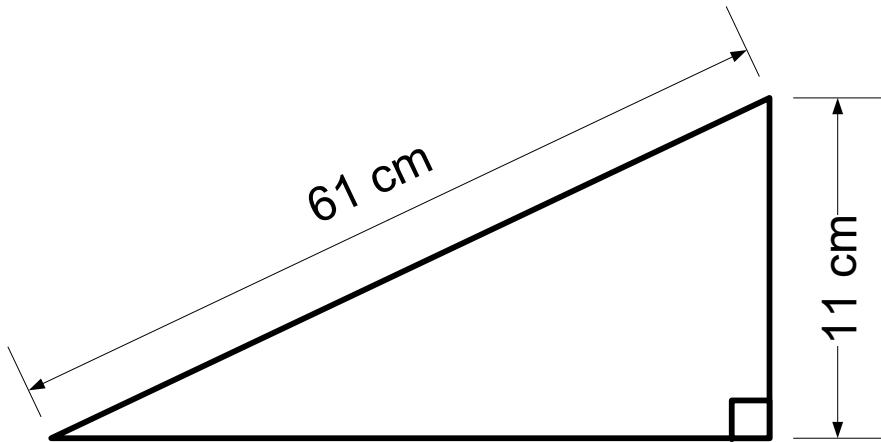# Mathematics Revision Sheets

Rule for the number of minutes to cook Beef:
Multiply the weight, in kg, by 40 and then add 20.

How long would it take to cook a joint that weighs 2.5kg?

Here are some numbers in an arithmetic sequence.

4, 11, 18, 25, …, …, ...

Write down the next three numbers in the sequence.

61 cm

11 cm

What is the area of the triangle?

Put these numbers into order.

$$\frac{4}{5} \quad 70\% \quad 0.72 \quad \frac{3}{4} \quad 0.702$$

How many parts has the following been split into?

12:14:13   _____ parts
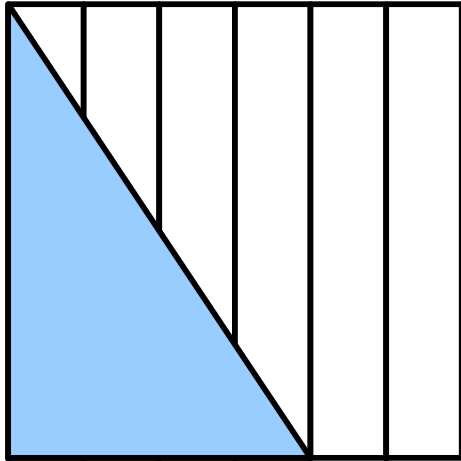
4: 8: 11   _____ parts

Bill and Joanne share £50 in the proportion 3:2. How much is one part worth?

Write the following ratios as fractions

8:3:8:2

Ian and Charlotte share some sweets in the ratio 5:4. Ian gets 75 sweets. How many does Charlotte get?

What fraction is shaded blue?

_____
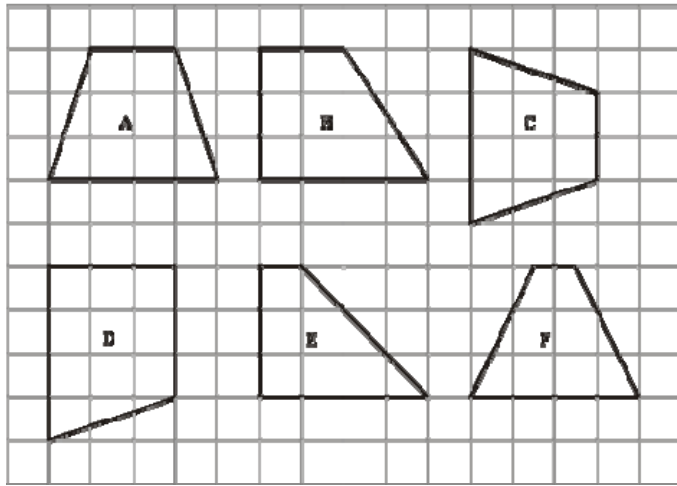
Convert the following to decimals and percentages.

$$\frac{13}{25} =$$

$$\frac{41}{50} =$$

What is $\frac{5}{8}$ of 240?

Give the answer to the following in its simplest form.
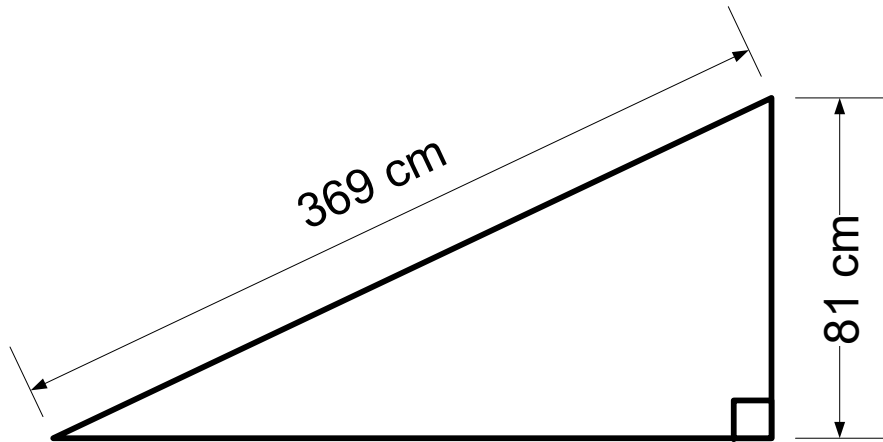
$$\frac{6}{25} \div \frac{18}{45} =$$

Which shapes are congruent?

Here are some numbers in a sequence.

1, -3, -7, -11, …, …, ...

Write down the next three numbers in the sequence.

What is the area of the triangle?

Put these numbers into order.

$$\frac{9}{11} \quad 81\% \quad 0.8 \quad \frac{17}{20} \quad 0.802802$$

Fill the table in for **y=x-8 for -3≤ x ≤ 7**

x	-3	-2	-1	0	1	2	3	4	5	6	7
y			-9							-2	

Write 84 as a product of its prime factors.

Expand the following:

-8(3x – 4)

	3x	-4
-8		

6x(7x + 9)

	7x	+9
6x		

Factorise the following

16x - 36

___ (_____)

Calculate the perimeter

24 cm

143 cm
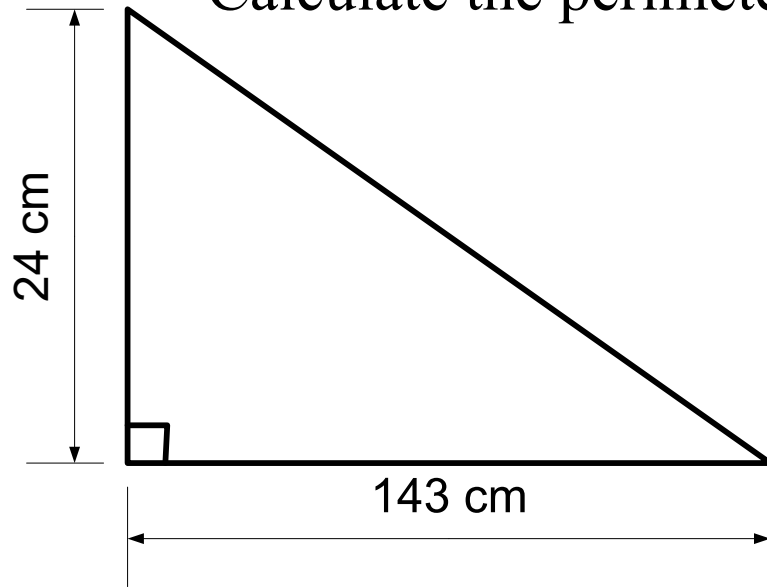
Write 180 as a product of its prime factors.

Write the following ratios as fractions

$$3:7:10:5$$

Factorise the following

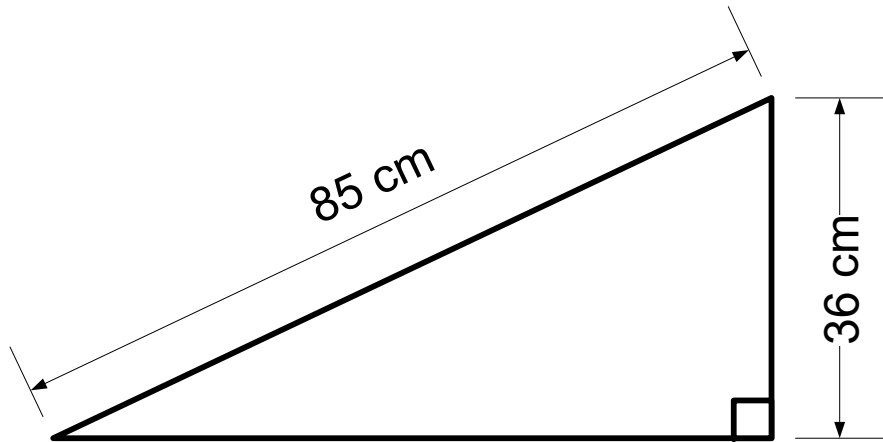$$4pq^2 + 6p^2q^3$$

$$\underline{}\ (\ \underline{}\ )$$

Pay is calculated by the following rule:

Pay = Basic Pay + Overtime rate times the number of hours worked overtime.

**Bill's basic pay was £360 per week.
His overtime rate was £14 per hour.
He worked 8 hours overtime.
How much was Bill paid?**
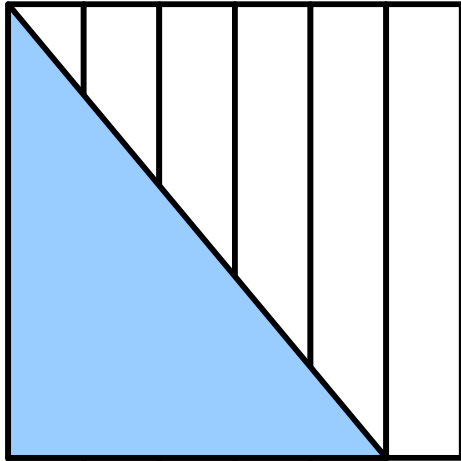
Here are some numbers in an geometric sequence.

2, -4, 8, -16, …, …, ...

Write down the next three numbers in the sequence.

85 cm

36 cm

What is the area of the triangle?

Put these numbers into order.

$\frac{7}{10}$ 70.2% 0.72 $\frac{3}{4}$ 0.079

What fraction is shaded blue?

———

Convert the following to decimals and percentages.

$$\frac{8}{25} =$$

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

What is $\frac{7}{8}$ of 360?

Give the answer to the following in its simplest form.

$$\frac{6}{25} \div \frac{18}{45} =$$

Fill the table in for **y=4x-8 for -3≤ x ≤ 7**

x	-3	-2	-1	0	1	2	3	4	5	6	7
y						0				16	

Write 240 as a product of its prime factors.

Expand the following:

$3(4x - 5)$ $5x(3x + 2)$

	4x	-5
3		

	3x	+2
5x		

Factorise the following

$12x + 8$

___ (_____)

Copy and complete the equations

Sin θ = ——

Cos θ = ——

Tan θ = ——

Label the sides in relation to the shown angle.

Calculate the length of side *x*.

85 mm

27°

x

Calculate the size of angle θ.

51 cm

75 cm

θ

Calculate the perimeter

52 cm

165 cm
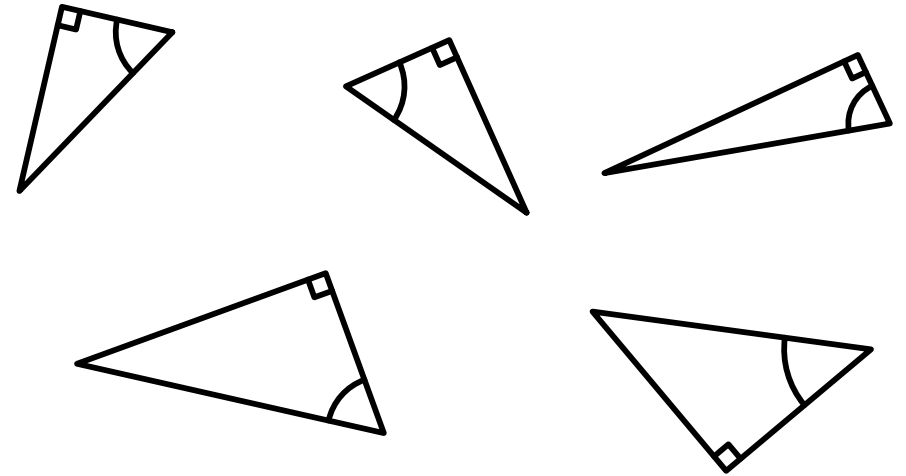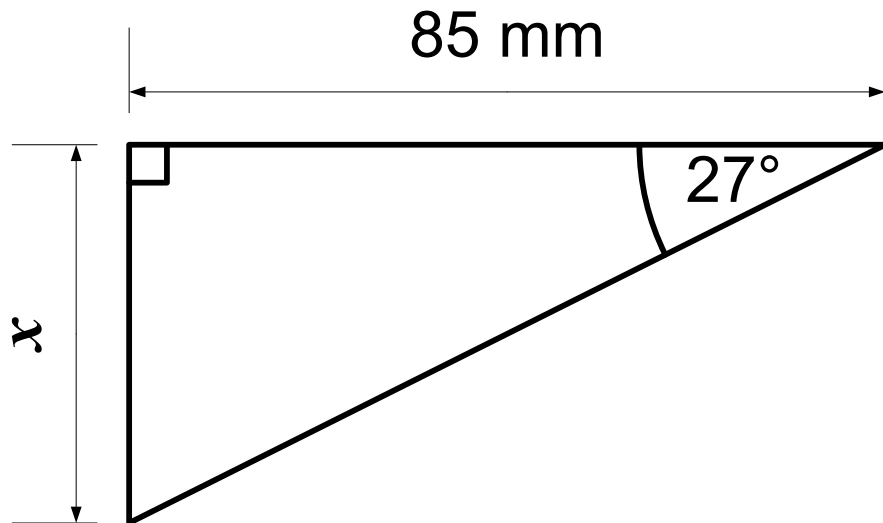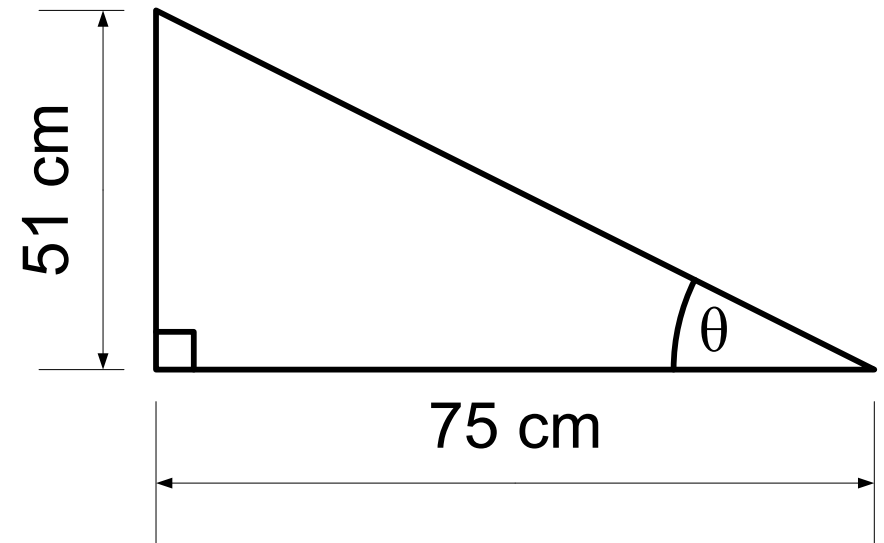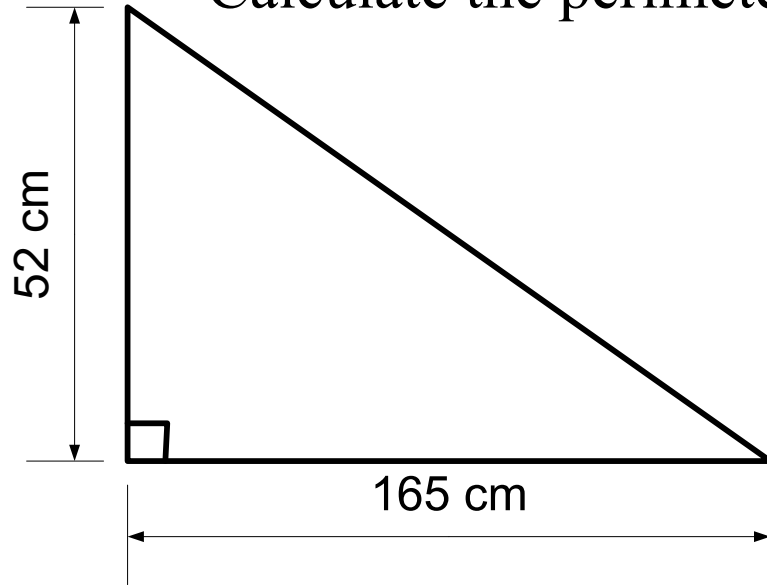
Write 360 as a product of its prime factors.

Write the following ratios as fractions

$$12:3:7:8$$

Factorise the following

$$24+16f$$

__ (_____)

How many parts has the following been split into?

$7: 4: 9$ _____ parts

$3: 5: 15$ _____ parts

Bill and Joanne share £50 in the proportion 3:7. How much more does Joanne get?
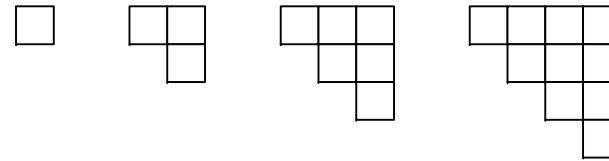
Write the following ratios as fractions

$3:7:10:5$

Fred and Nazma share some sweets in the ratio 5:4. Fred gets 60 sweets. How much does Nazma get?

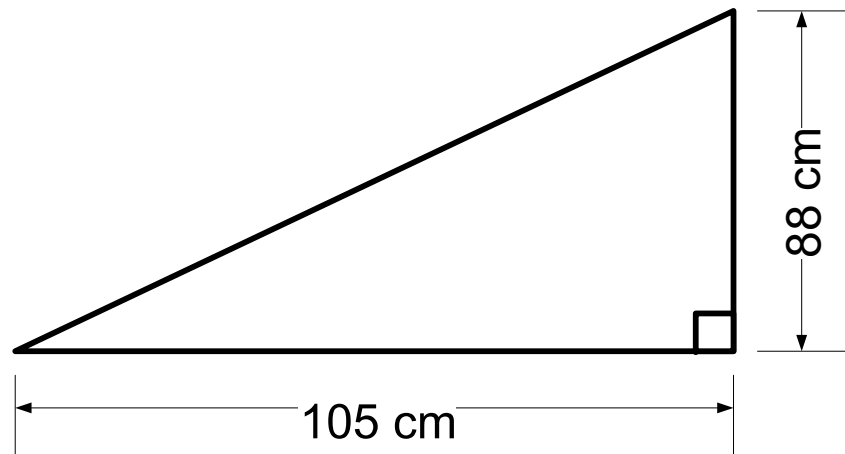**Fill in the table for the co-ordinates for $y=x^2$ for $-3 \le x \le 5$**

x	-3	-2	-1	0	1	2	3	4	5
y	9				1				25

Give the coordinates of the y intercept. $\left(\underline{\quad} , \underline{\quad}\right)$

Look at the pattern made from the squares.

Draw the next two patterns.

What is the perimeter of the triangle?

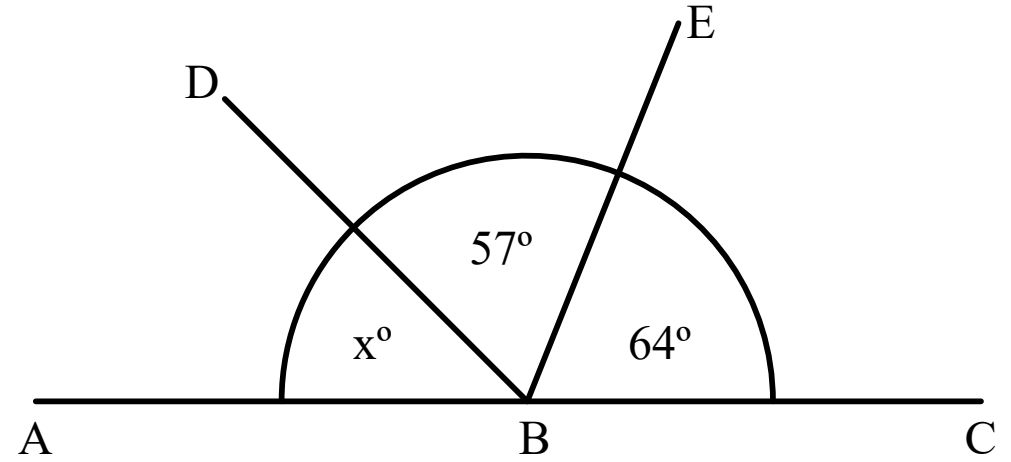$$\frac{11}{12} \div \frac{3}{8} =$$

$$\frac{11}{12} \times \frac{3}{8} =$$

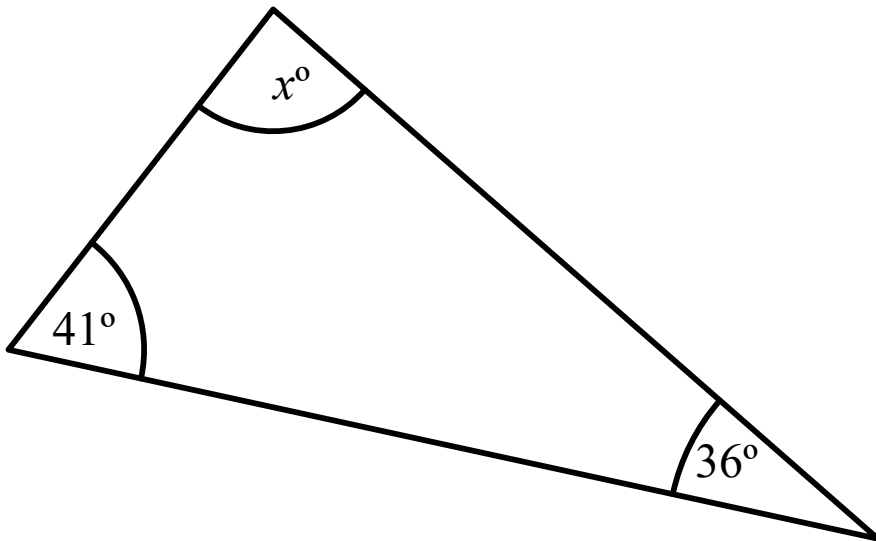$$\frac{11}{12} + \frac{3}{8} =$$

$$\frac{11}{12} - \frac{3}{8} =$$

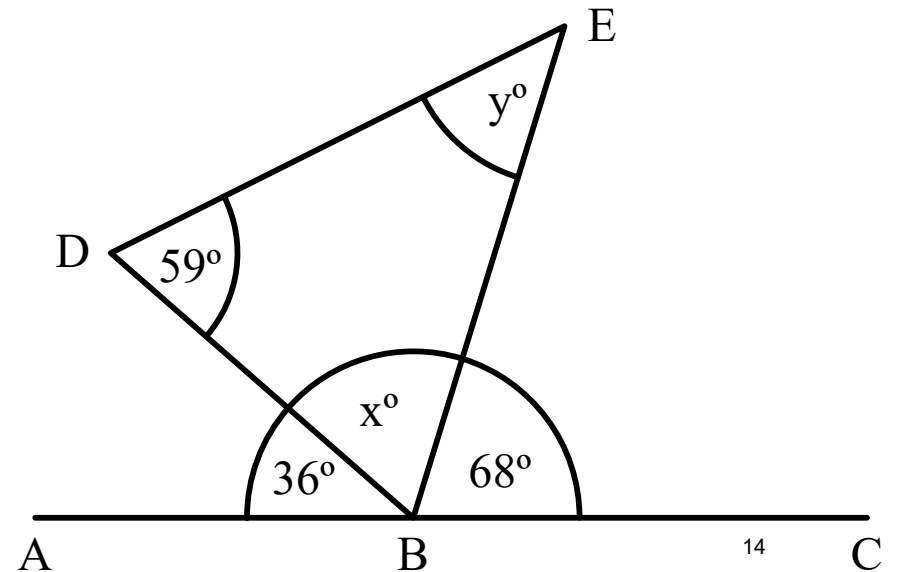ABC is a straight line. Find the value of x.
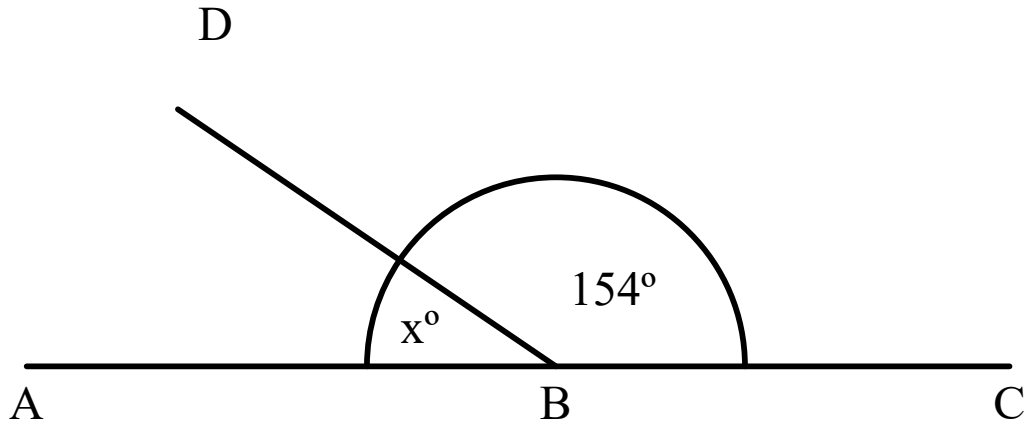
D

154º

xº

A　　　　　B　　　　　C

ABC is a straight line. Find the value of x.

E

D

57º

xº　　　　64º

A　　　　　B　　　　　C

ABC is a triangle. Find the value of x.

xº

41º

36º

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ABC is a straight line. BDE is a triangle.
Find the values of x and y.

E

yº

D

59º

xº

36º　　68º

A　　　　　B　　14　　C

How many parts has the following been split into?

$6:2:5:7$ _____ parts

$12:6:9:1$ _____ parts

Bill and Joanne share £40 in the proportion 3:2. How much is one part worth?

Write the following ratios as fractions

$6:9:15$

Put the ratio 6:5 in the form n:1.

What fraction is shaded blue?

 _____

 _____

 _____

 _____
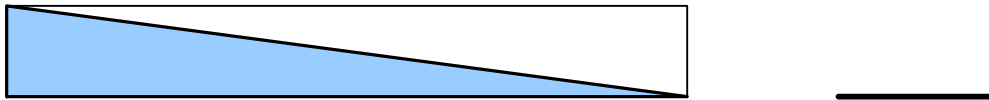
Convert the following to decimals and percentages.

$$\frac{8}{10} =$$

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

What is $\frac{3}{5}$ of 60?

Give the answer to the following in its simplest form.

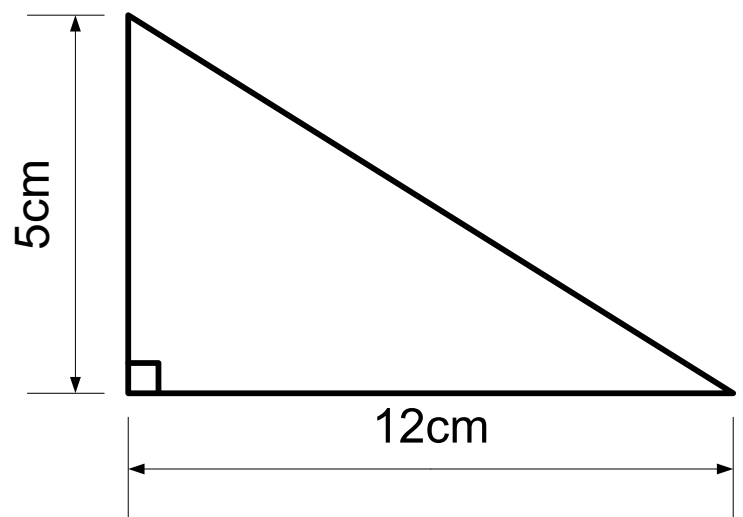$$\frac{8}{10} \times \frac{5}{12} =$$

Find the value of the following:

$5^2 =$ $8^2 =$

$14^2 =$ $4^2 =$

$12^2 =$ $13^2 =$

Which equation do we use to work out the length of side x?

$$x = \sqrt{a^2 + b^2}$$

$$x = \sqrt{c^2 - b^2}$$

Find the length of the missing side.

5cm

12cm

Find the perimeter of this triangle.

5cm

12cm
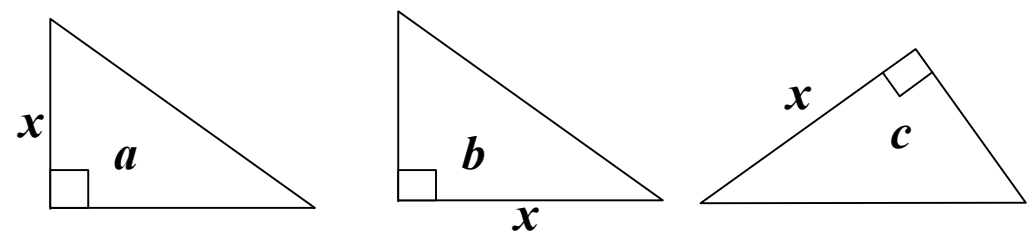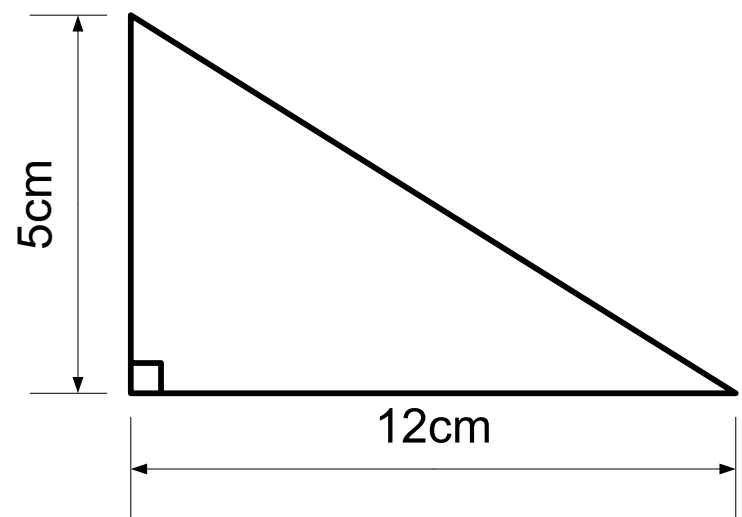
How many parts has the following been split into?

$4:5:7$ _____ parts

$8:7:9:4$ _____ parts

Bill and Joanne share £96 in the proportion 3:5. How much is one part worth?

Write the following ratios as fractions in their simplest form.
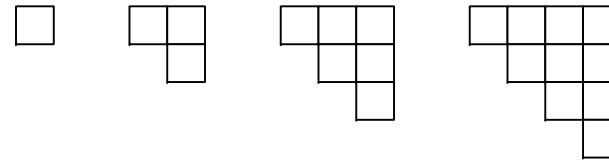
$12:15:18$

Put the ratio 5:11 in the form 1:n.

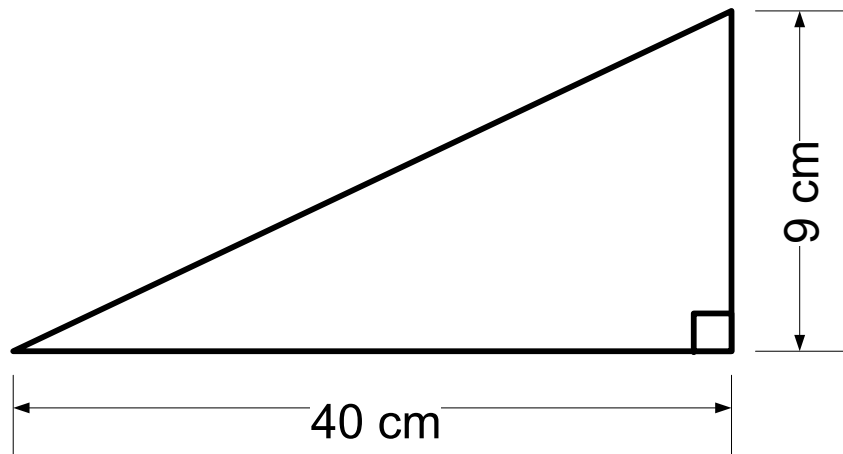**Fill in the table for the co-ordinates for $y=12 - 2x$ for $-3 \le x \le 5$**

x	-3	-2	-1	0	1	2	3	4	5
y	18				10				2

Give the coordinates of the y intercept. $\left(\underline{\quad} , \underline{\quad} \right)$

Look at the pattern made from the squares.

Which pattern has 28 squares?

What is the perimeter of the triangle?

$$\frac{7}{12} \div \frac{2}{7} =$$

$$\frac{7}{12} \times \frac{2}{7} =$$

$$\frac{7}{12} + \frac{2}{7} =$$

$$\frac{7}{12} - \frac{2}{7} =$$

How many parts has the following been split into?

$3:7:10$ _____ parts

$4:3:4:5$ _____ parts

Jack and James share £90 in the proportion 4:11. How much is one part worth?

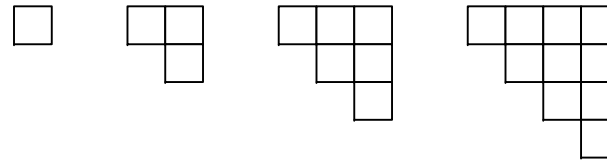Write the following ratios as fractions in their simplest form.

$25:30:45$

Put the ratio 8:30 in the form 1:n.

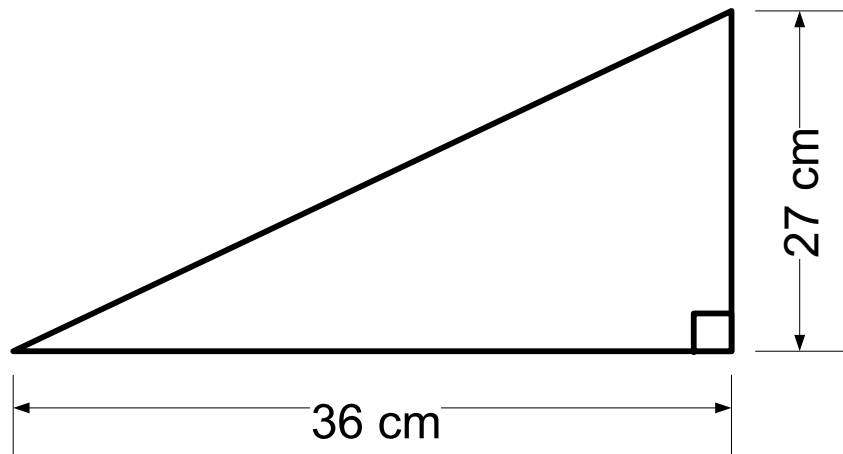**Fill in the table for the co-ordinates for $y=2x-5$ for $-3 \leq x \leq 5$**

x	-3	-2	-1	0	1	2	3	4	5
y	-11				-3				5

Give the coordinates of the y intercept. $\left(\underline{\quad} , \underline{\quad} \right)$

Look at the pattern made from the squares.

How many squares will be in pattern 12?

What is the perimeter of the triangle?

$$\frac{7}{10} \div \frac{2}{5} =$$

$$\frac{7}{10} \times \frac{2}{5} =$$

$$\frac{7}{10} + \frac{2}{5} =$$

$$\frac{7}{10} - \frac{2}{5} =$$

Into how many parts has the following been split?

$4:6:9$ _____ parts

$44:66:99$ _____ parts

Jack, Joan and James share 190 sweets in the proportion 4:6:9. How much is one part worth?

Bill, Freda and Francesca have split a food bill in the following ratio.
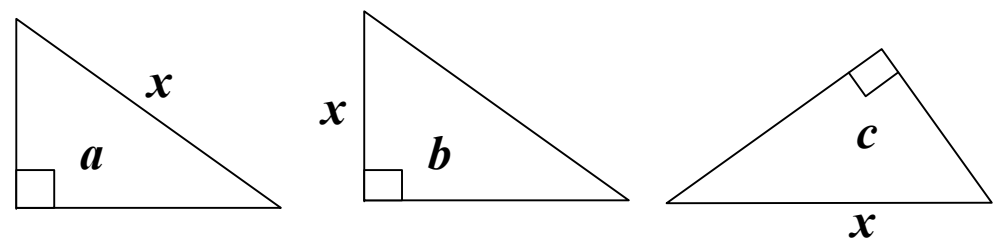
$4:6:9$

What fraction of the bill does Freda pay?

Mary Mungo and Midge share a house. They each pay rent in the proportion to 4:6:9. The total rent is £380. How much do each of them pay?
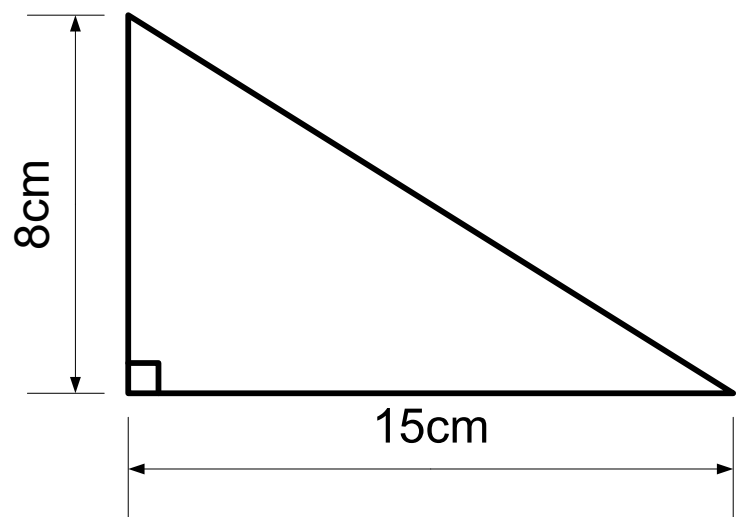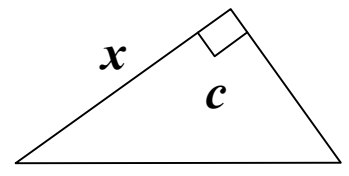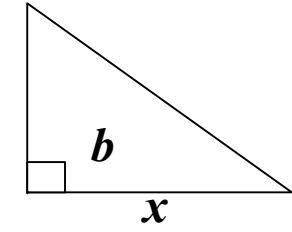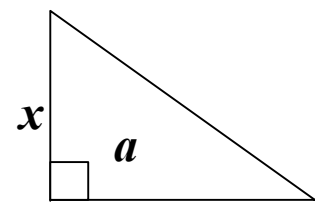
Find the value of the following:

$8^2 =$ $6^2 =$

$15^2 =$ $9^2 =$

$10^2 =$ $17^2 =$

Which equation do we use to work out the length of side x?

$$x = \sqrt{a^2 + b^2}$$

$$x = \sqrt{c^2 - b^2}$$

Find the length of the missing side.

8cm

15cm

Find the perimeter of this triangle.

8cm

15cm
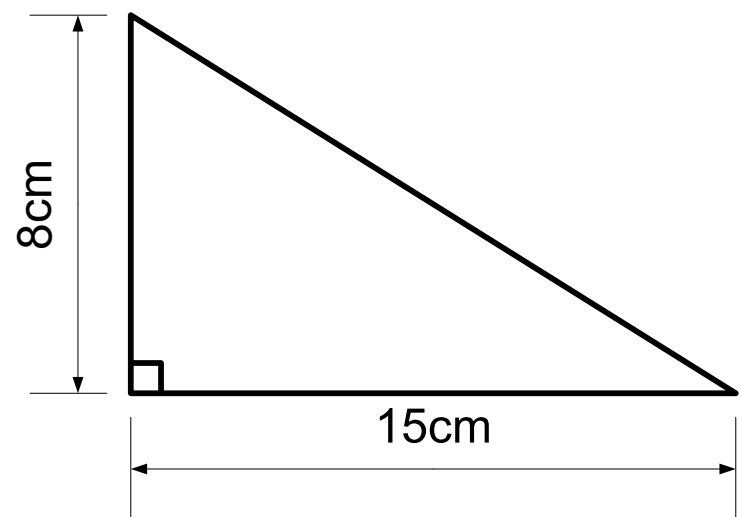
Fill the table in for **y=6x+8 for -3≤ x ≤ 7**

x	-3	-2	-1	0	1	2	3	4	5	6	7
y			2							44	

Write 150 as a product of its prime factors.

Expand the following:

4(7x – 5)   3x(8x + 6)

	7x	-5
4		

	8x	+6
3x		

Factorise the following

24x + 36

___ (_____)

Find the value of the following:

$7^2 =$ $29^2 =$

$11^2 =$ $21^2 =$

$20^2 =$ $16^2 =$

Which equation do we use to work out the length of side x?
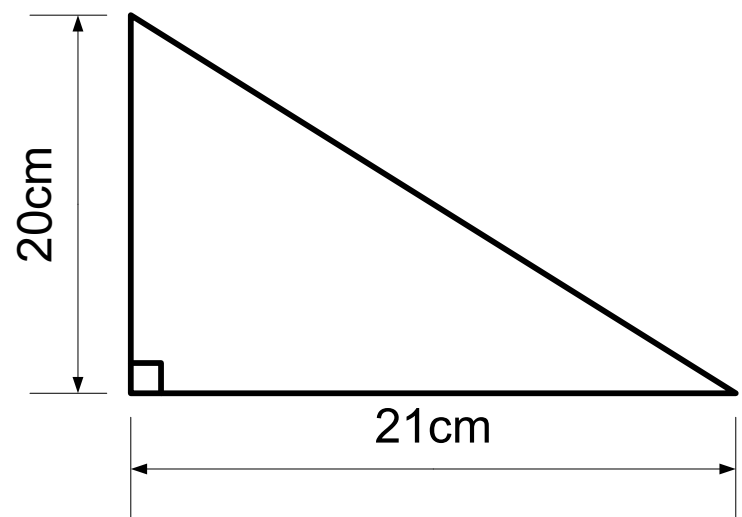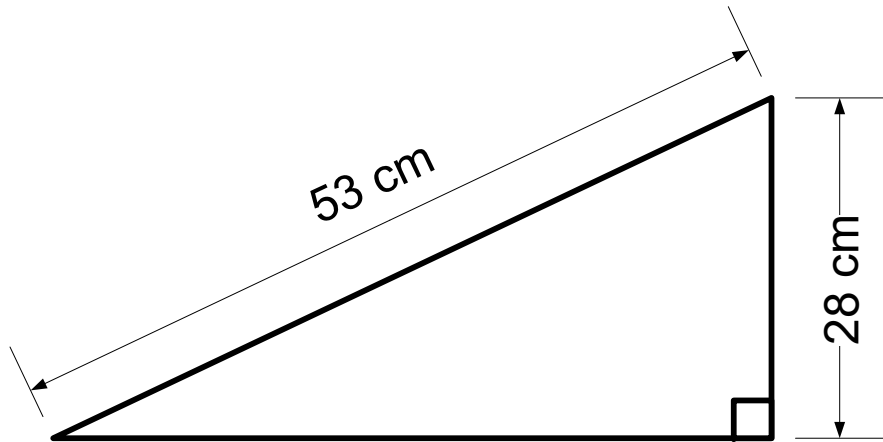
$$x = \sqrt{a^2 + b^2}$$

$$x = \sqrt{c^2 - b^2}$$

Find the length of the missing side.

20cm

21cm

Find the perimeter of this triangle.

20cm

21cm
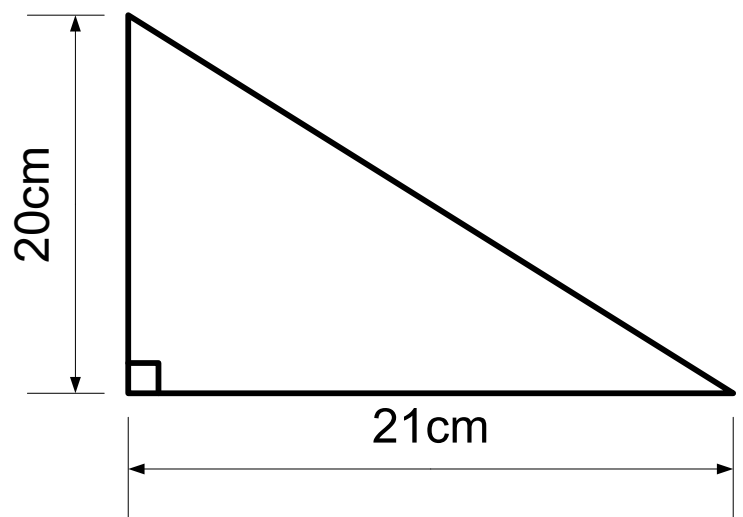
Pay is calculated using the following rule:

Pay = Basic Pay + 30p for each item made

Ian's basic pay was £140 per week.

Ian made 340 items in the week. How much was he paid?
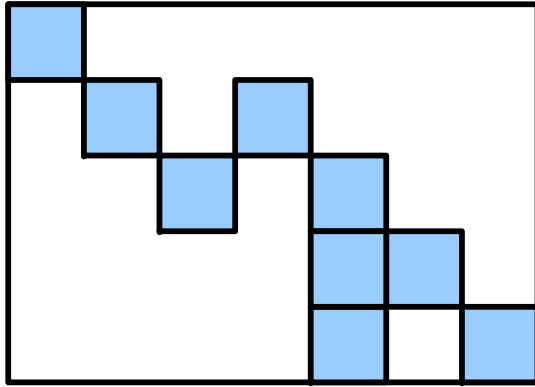
Here are some numbers in an geometric sequence.

2, 6, 18, 54, …, …, ...

Write down the next three numbers in the sequence.

What is the area of the triangle?

Put these numbers into order.

$$\frac{8}{11} \quad 80\% \quad 0.72 \quad \frac{3}{4} \quad 0.802802$$

What fraction is shaded blue?

_____

Convert the following to decimals and percentages.

$$\frac{7}{20} =$$

$$\frac{17}{50} =$$

What is $\frac{3}{4}$ of 240?

Give the answer to the following in its simplest form.
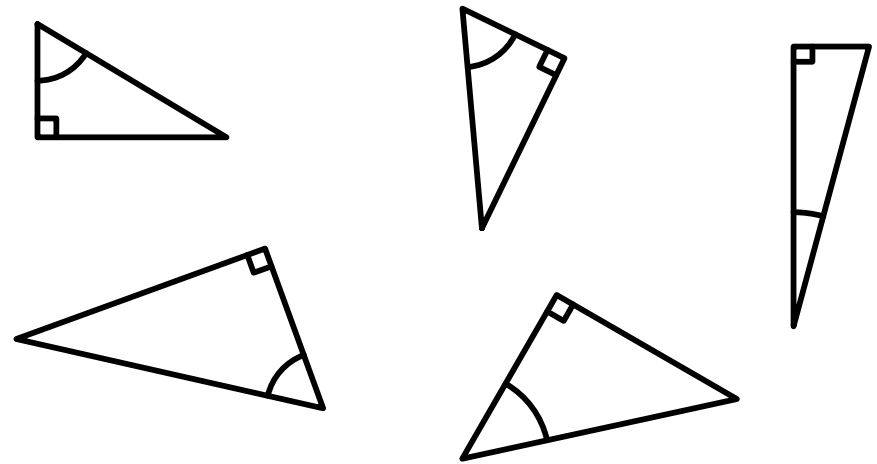
$$\frac{8}{11} \div \frac{16}{66} =$$

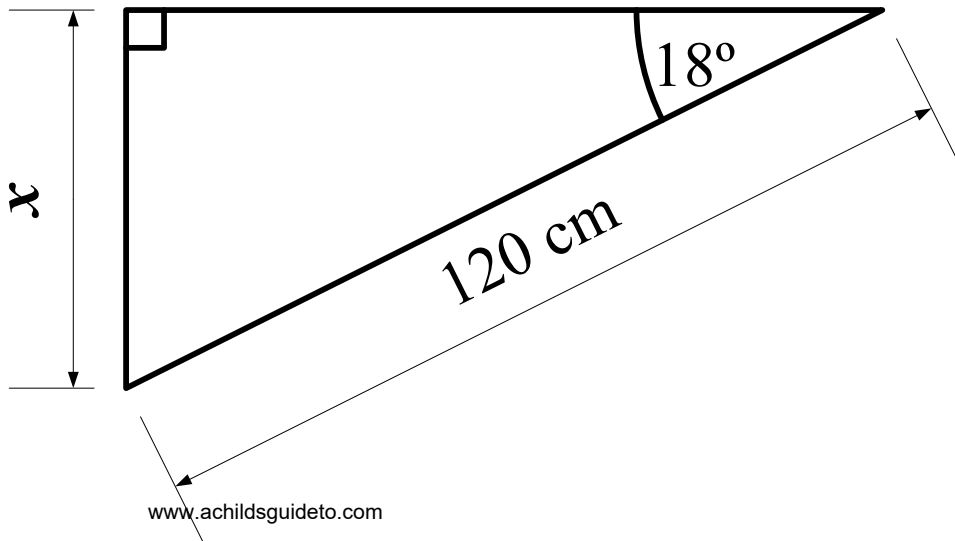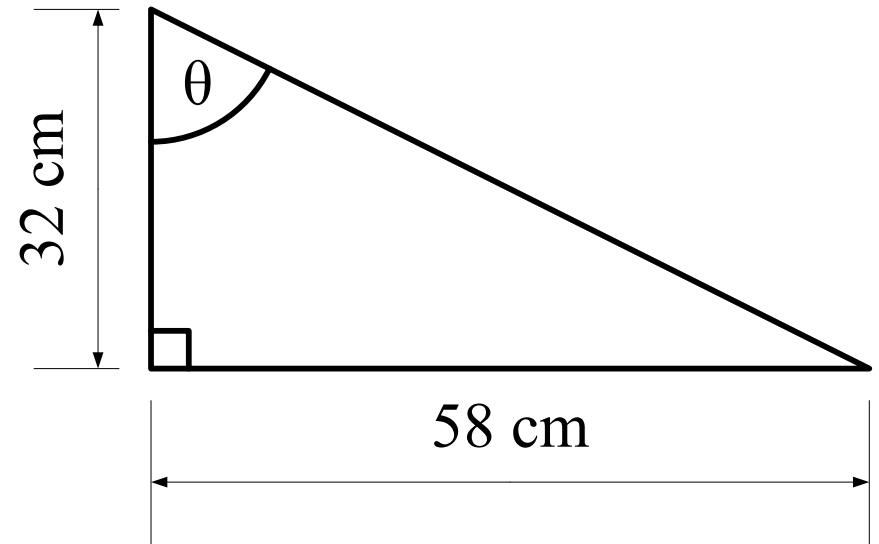## Copy and complete the sentence.

Some _____ _____

Curley **A**uburn _____

'**T**il _____ _____

Label the sides in relation to the shown angle.

Calculate the length of side *x*.

18º

120 cm

x

Calculate the size of angle θ.

θ

32 cm

58 cm

Fill the table in for **y=9 − 2x for -3≤ x ≤ 7**

x	-3	-2	-1	0	1	2	3	4	5	6	7
y			11								-5

Write 84 as a product of its prime factors.

Expand the following:

-8(3x − 4)

6x(7x + 9)

	3x	-4
-8		

	7x	+9
6x		

Factorise the following

8m + 6mn

___ (_____)

Copy and complete the equations

Sin θ = ——

Cos θ = ——

Tan θ = ——

Label the sides in relation to the shown angle.

Calculate the length of side *x*.

63mm

31°

72mm

Calculate the size of angle θ.

84 cm

18 cm
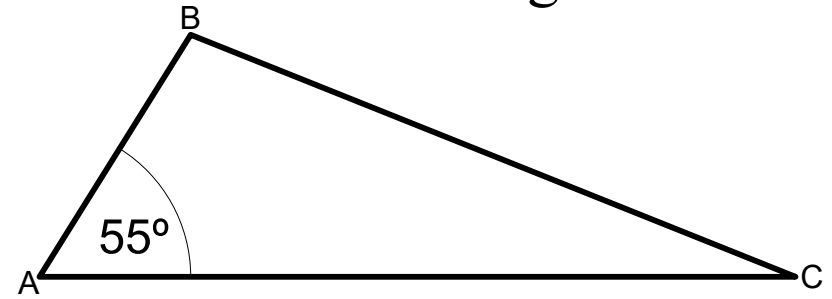
θ
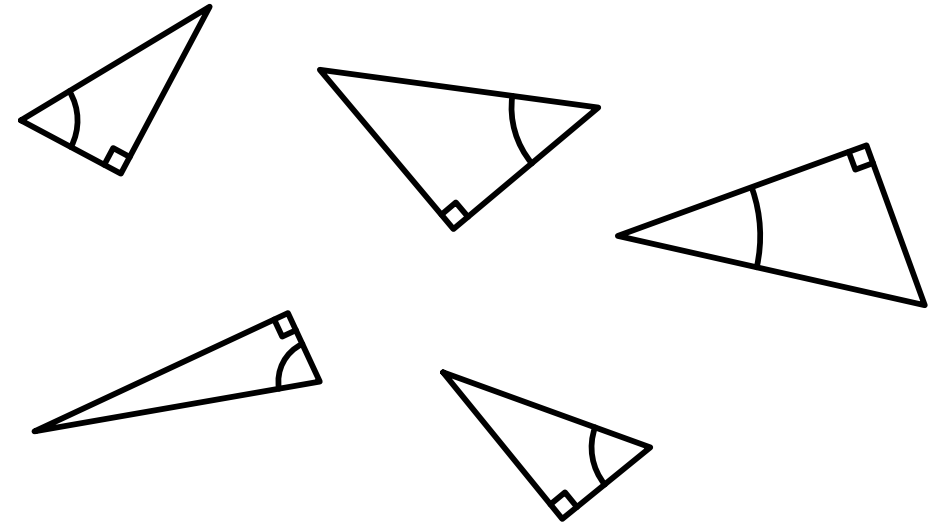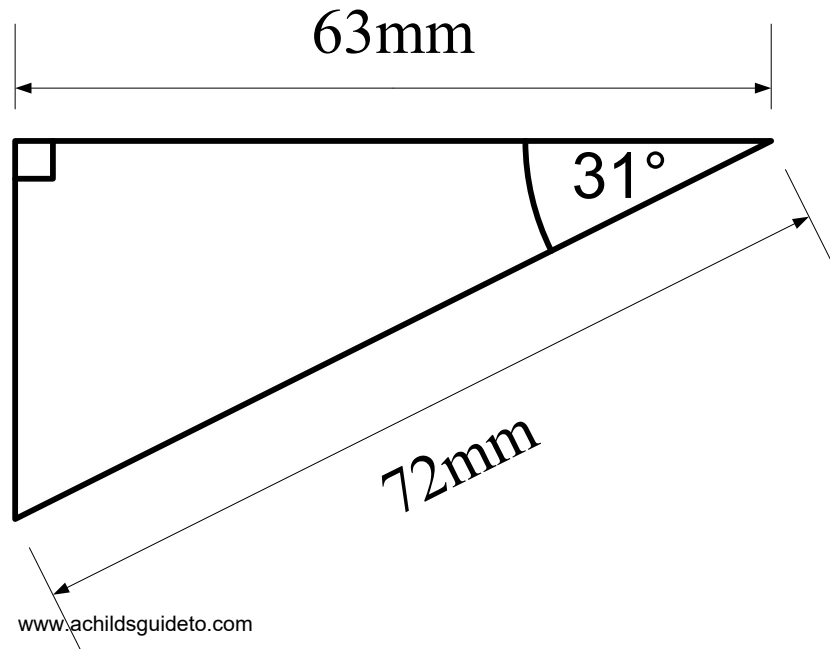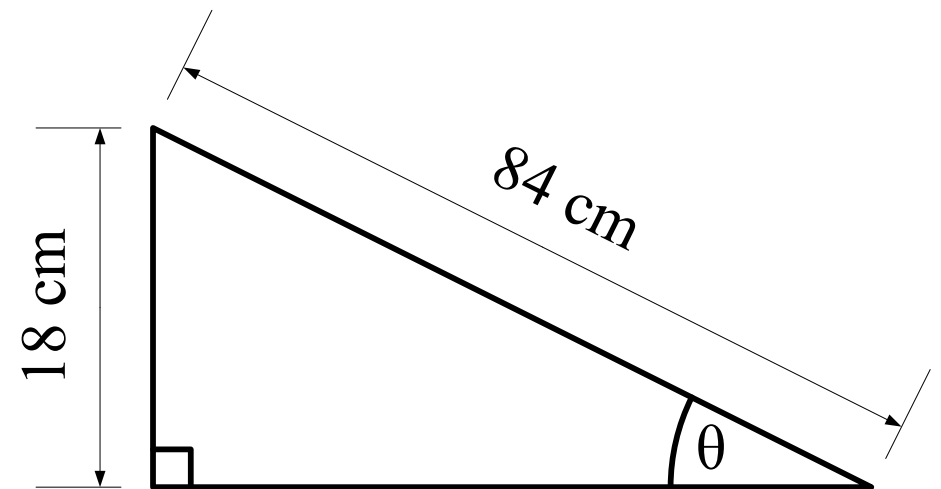
Name the shape and say how many triangles are in each one.
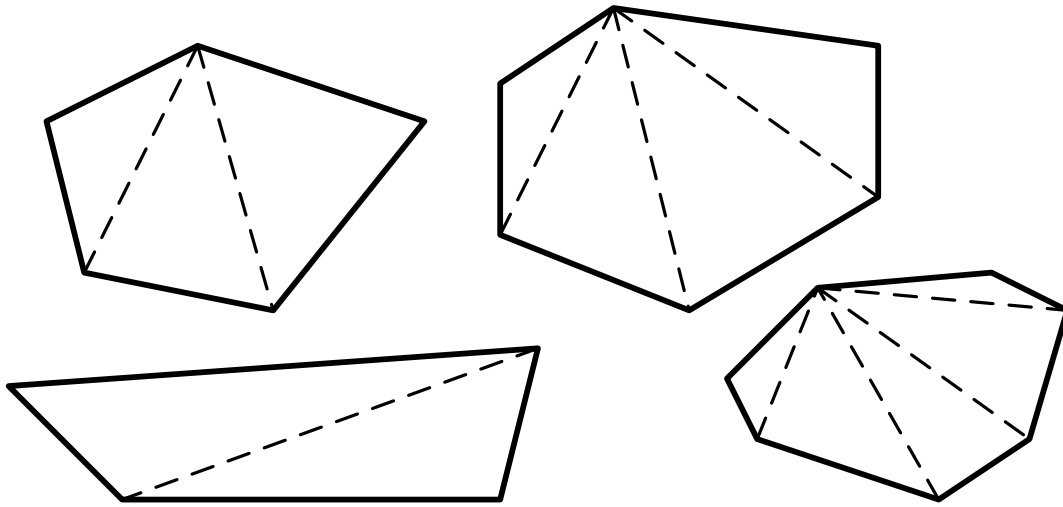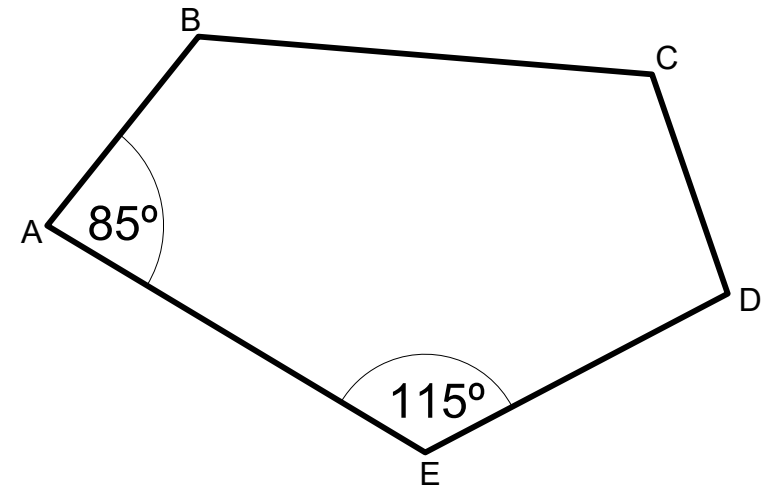

Write an equation to find the value of each angle.

Angle ABC is three times the size of angle BCA.

Fill in the following table:

| Number of sides	Number of triangles	Number of degrees
4	____ × 180	_____
5	____ × 180	_____
6	____ × 180	_____
7	____ × 180	_____
23	____ × 180	_____

Find the size of each angle.

Angle ABC is 12 degrees greater than angle CDE.
Angle BCD is twice as large as angle CDE.

David has x pencils in his pencil case. Aimee has 12 more pencils than David. Write an expression for the total number of pencils in Aimee's pencil case.

Write an equation to find the value of each angle.

70º

A

B

C
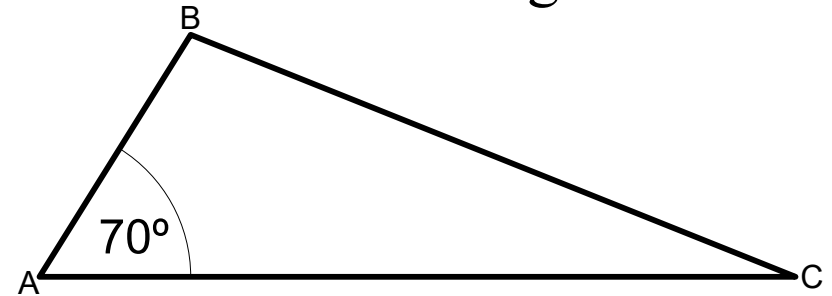
Angle ABC is thirty degrees larger than angle BCA.
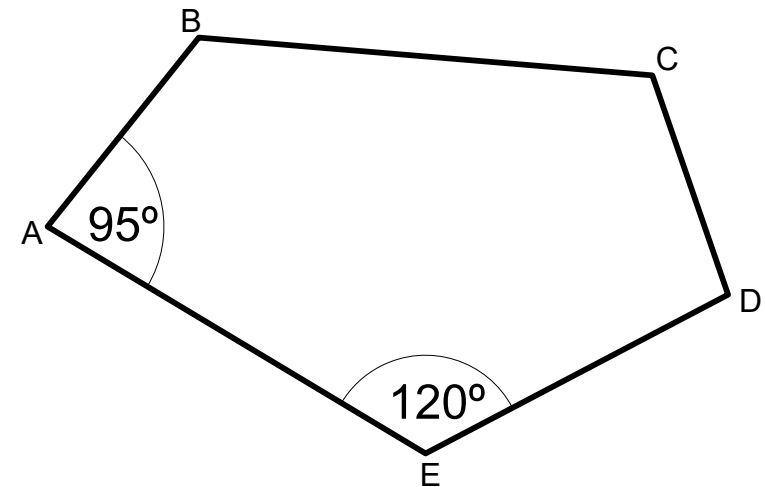
Billy, Danielle and Joanne went for a meal.
Billy's meal cost **w** pounds.
Danielle's meal was £15 less than Billy's meal.
Joanne's meal was £17 more than Danielle's meal.

Write an expression for the total cost of the meal.

Find the size of each angle.

B

C

A

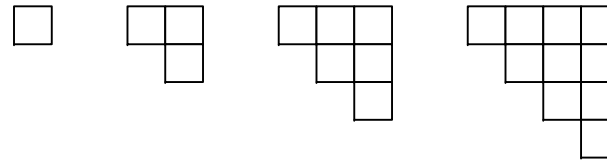95º

D

120º

E

Angle ABC is 20 degrees greater than angle CDE.
Angle BCD is twice as large as angle CDE.

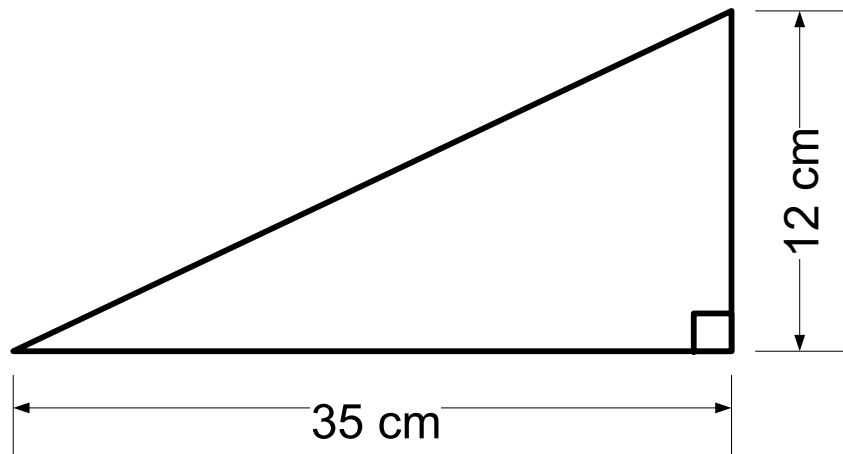**Fill in the table for the co-ordinates for $y=3x+5$ for $-3 \leq x \leq 5$**

x	-3	-2	-1	0	1	2	3	4	5
y	-4				8				20

Give the coordinates of the y intercept. $\left(\underline{\quad} , \underline{\quad} \right)$

Look at the pattern made from the squares.

How many squares will be in pattern 8?

What is the perimeter of the triangle?

$$\frac{3}{4} \div \frac{5}{6} =$$

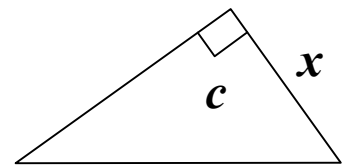$$\frac{3}{4} \times \frac{5}{6} =$$

$$\frac{3}{4} + \frac{5}{6} =$$
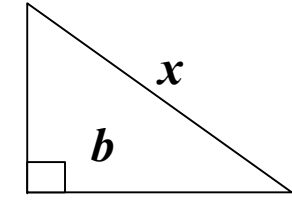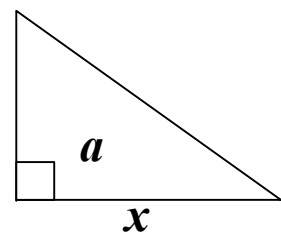
$$\frac{5}{6} - \frac{3}{4} =$$

Find the value of the following:
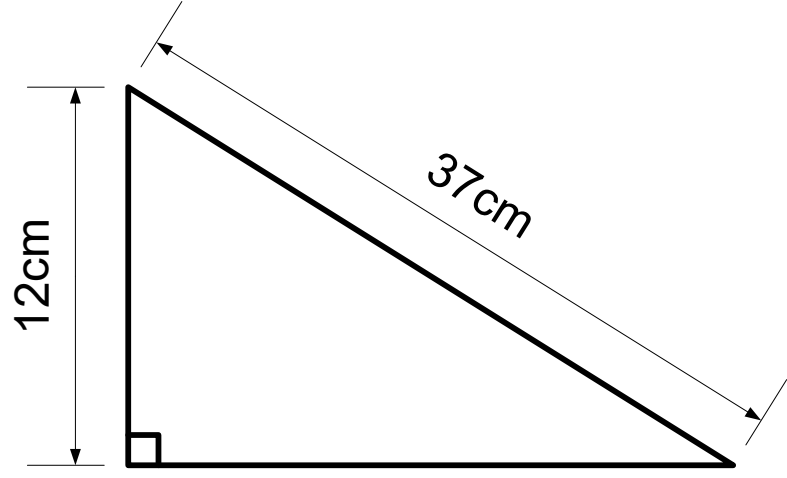
$5^2 =$ $37^2 =$

$16^2 =$ $39^2 =$

$12^2 =$ $35^2 =$

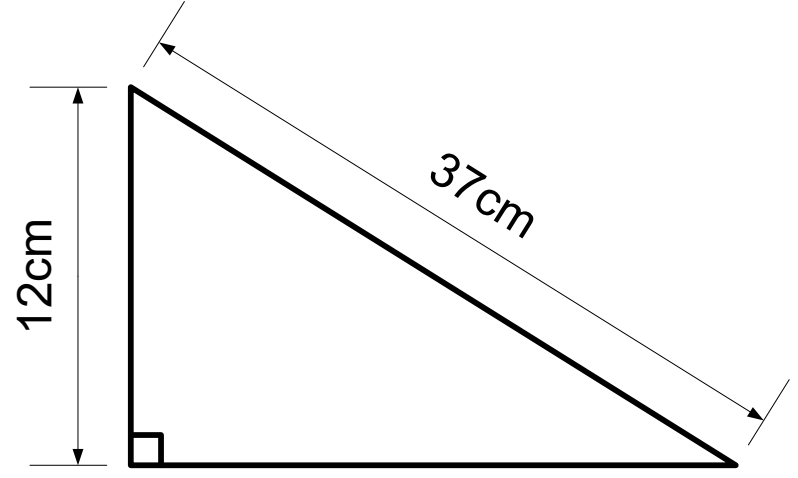Which equation do we use to work out the length of side x?

$$x = \sqrt{a^2 + b^2}$$

$$x = \sqrt{c^2 - b^2}$$

a

x

b

x

c

x

Find the length of the missing side.

12cm

37cm

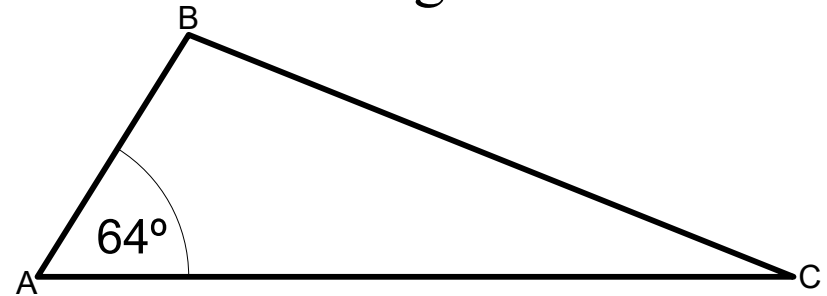Find the area of this triangle.

12cm

37cm

David has **x** pencils in his pencil case.

Aimee has 12 more pencils than David.

Write an expression for the total number of pencils in their pencil cases.

Find the size of each angle in the triangle ABC.

Angle ABC is four times the size of angle BCA.

Diana has **d** number of sweets.
Ethan has 7 more sweets than Diana.
Jamie has twice as many sweets as Ethan.

Write an expression for the total number of sweets that the three people have.

Billy has **p** pounds.
Sean has 12 pounds more than Billy.
Charlie has three times as much money as Sean.

Find an expression for the mean average amount of money that each person has.

What fraction is shaded blue?

_____
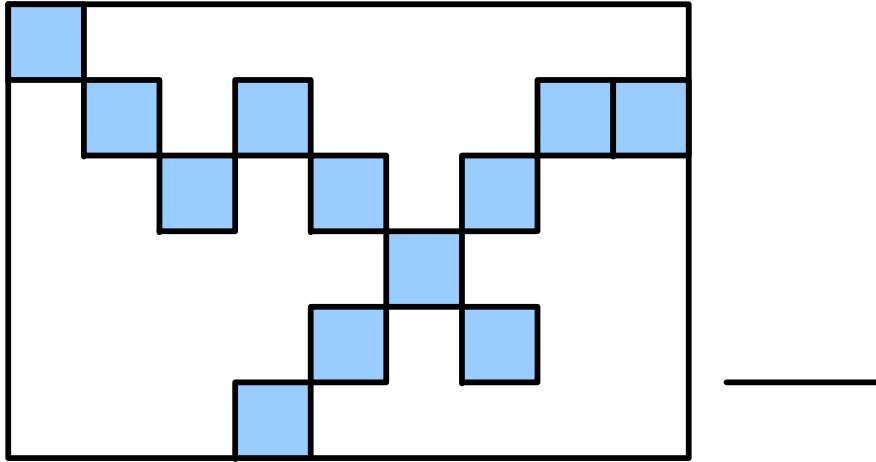
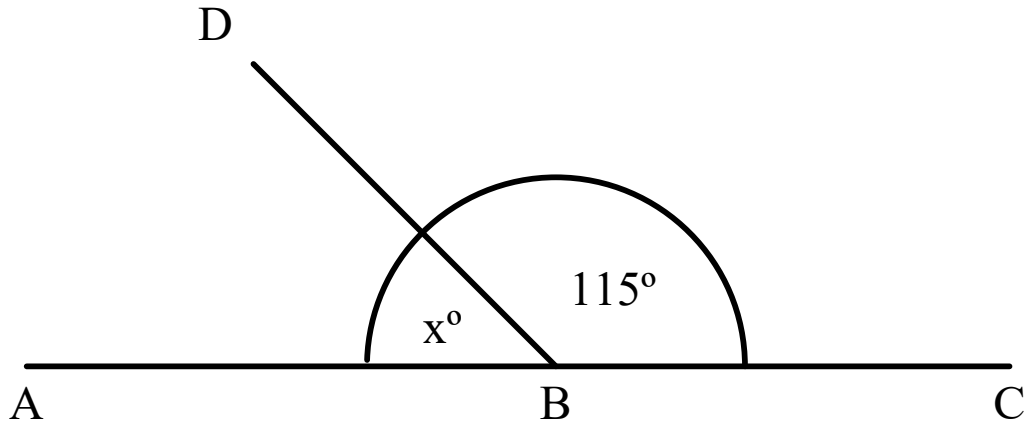Convert the following to decimals and percentages.

$$\frac{7}{25} =$$

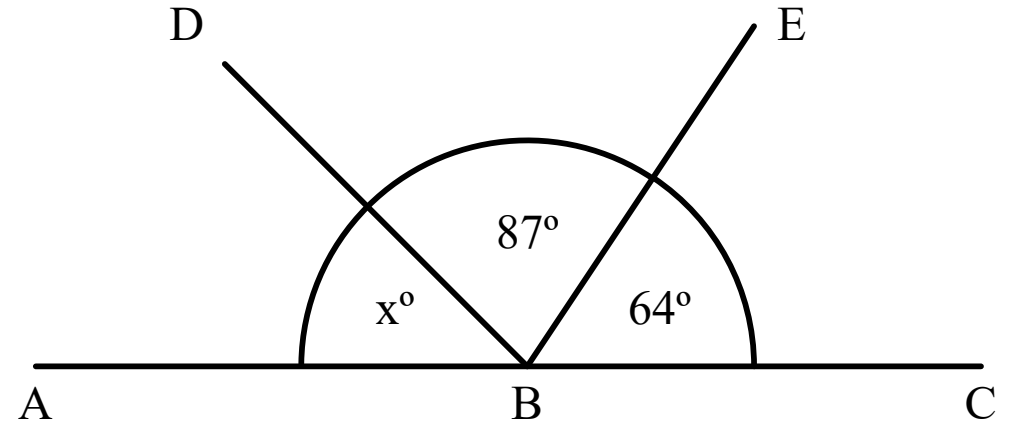$$\frac{27}{50} =$$

What is $\frac{3}{8}$ of 240?

Give the answer to the following in its simplest form.
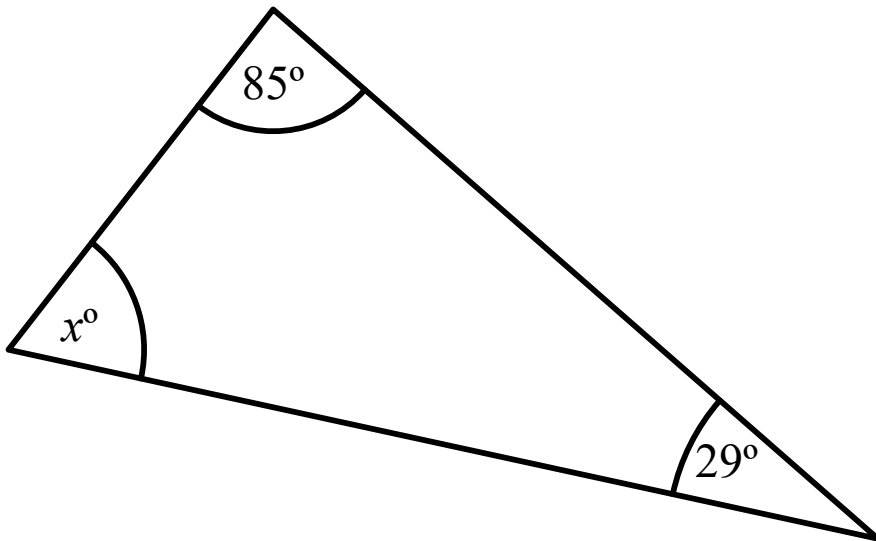
$$\frac{7}{18} \div \frac{28}{45} =$$
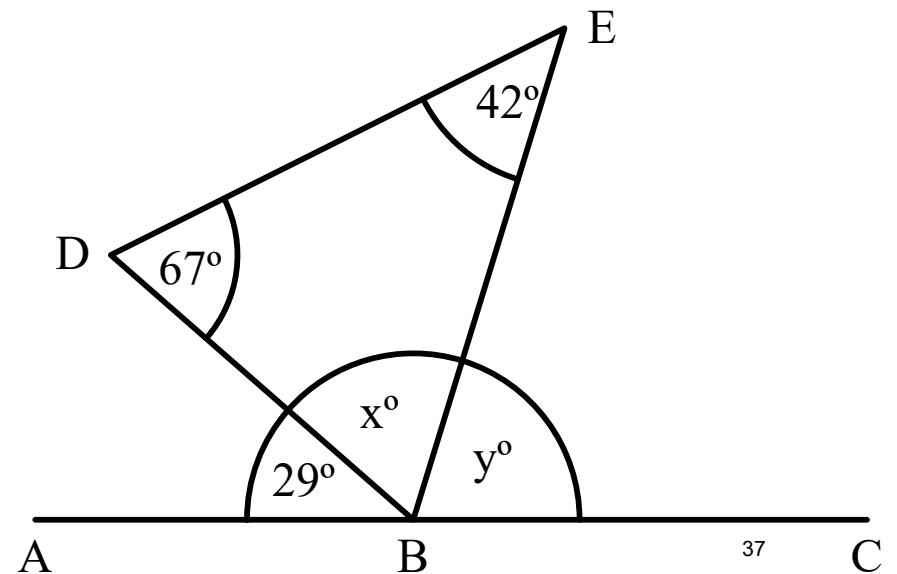
ABC is a straight line. Find the value of x.

D

115º

xº

A   B   C
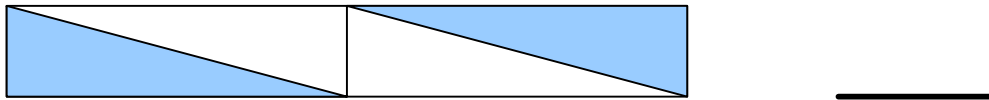
ABC is a straight line. Find the value of x.

D   E

87º

xº   64º

A   B   C

ABC is a triangle. Find the value of x.

85º

xº

29º

ABC is a straight line. BDE is a triangle.
Find the values of x and y.

E

42º

D 67º

xº

29º   yº

A   B   C

What fraction is shaded blue?

 _____

 _____

 _____

 _____
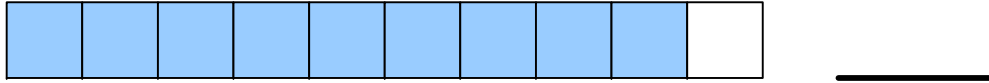
Convert the following to decimals and percentages.
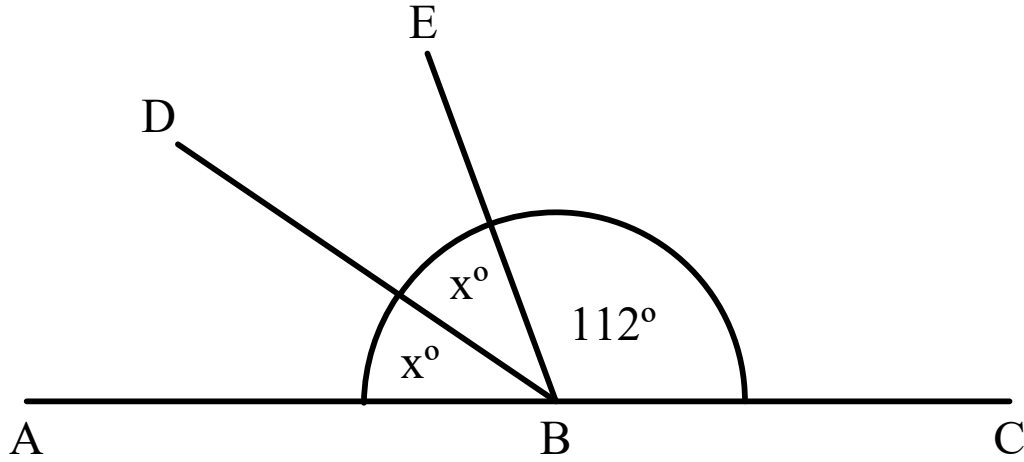
$$\frac{7}{10} =$$
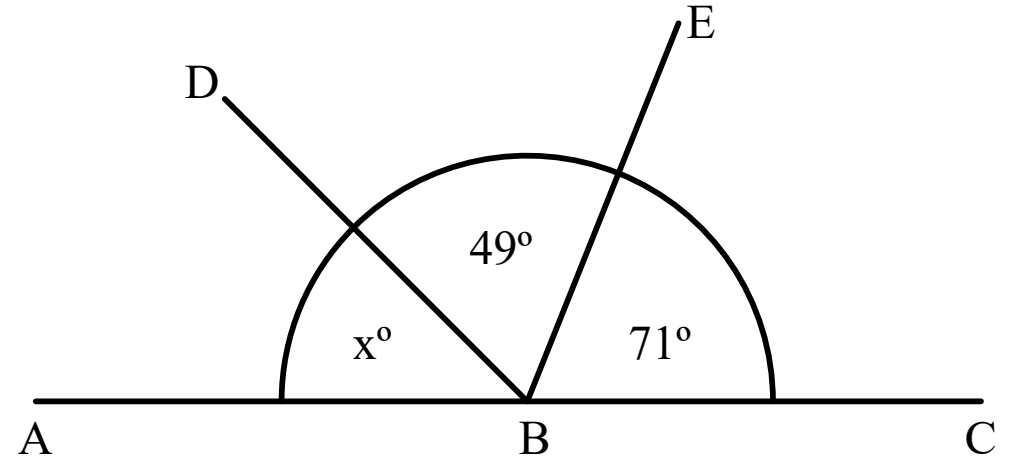
$$\frac{2}{5} =$$

What is $\frac{2}{5}$ of 20?

Give the answer to the following in its simplest form.

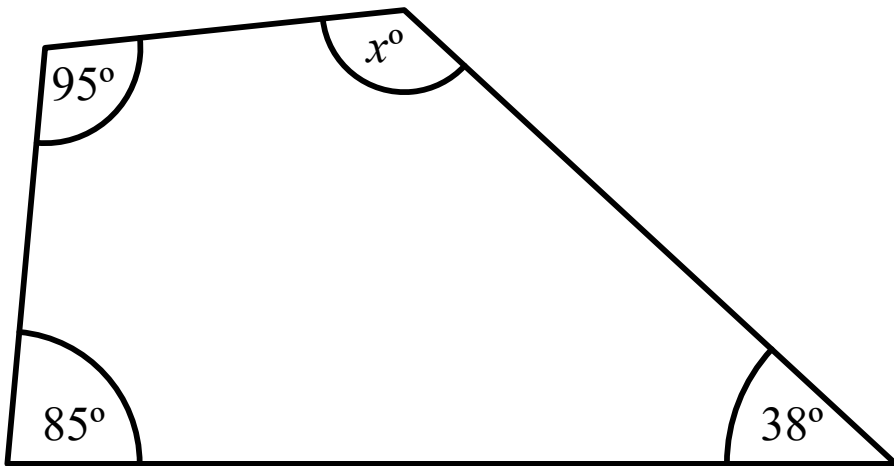$$\frac{8}{11} \times \frac{44}{60} =$$
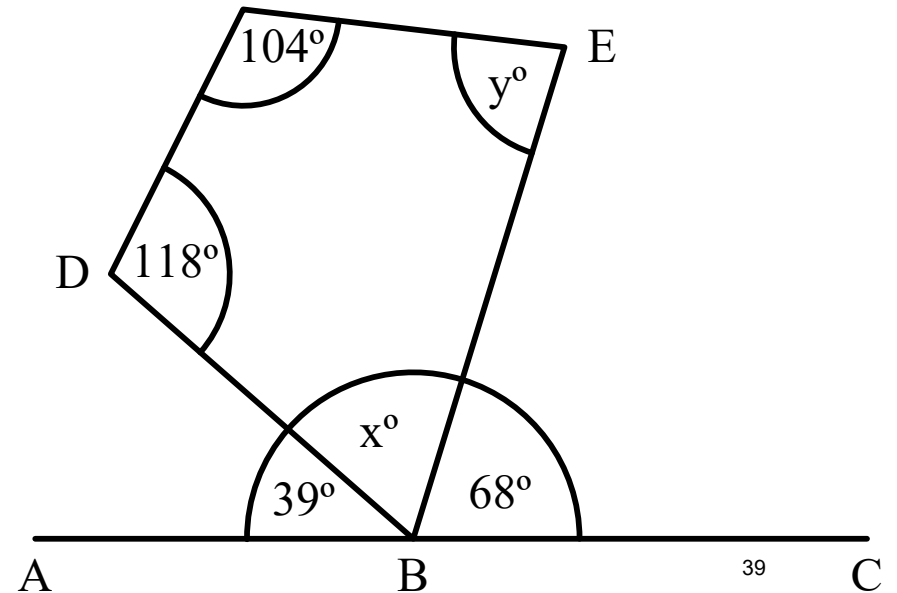
ABC is a straight line. Find the value of x.

E

D

x°
x°
112°

A   B   C

ABC is a straight line. Find the value of x.

D   E

49°

x°   71°

A   B   C
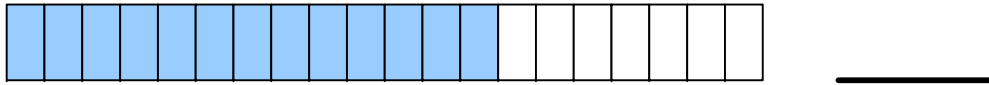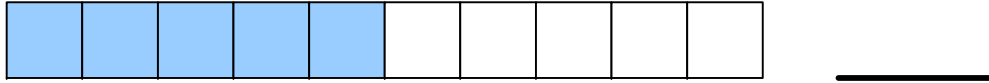
ABC is a quadrilateral. Find the value of x.

95°   x°

85°   38°

ABC is a straight line. BDE is a triangle.
Find the values of x and y.

104°   E
y°

D   118°

x°
39°   68°

A   B   39   C

What fraction is shaded blue?

_____

_____

_____

_____

Convert the following to decimals and percentages.

$$\frac{7}{10} =$$

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

What is $\frac{4}{5}$ of 80?
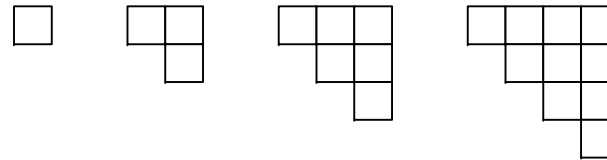
Give the answer to the following in its simplest form.

$$\frac{4}{5} \times \frac{15}{16} =$$

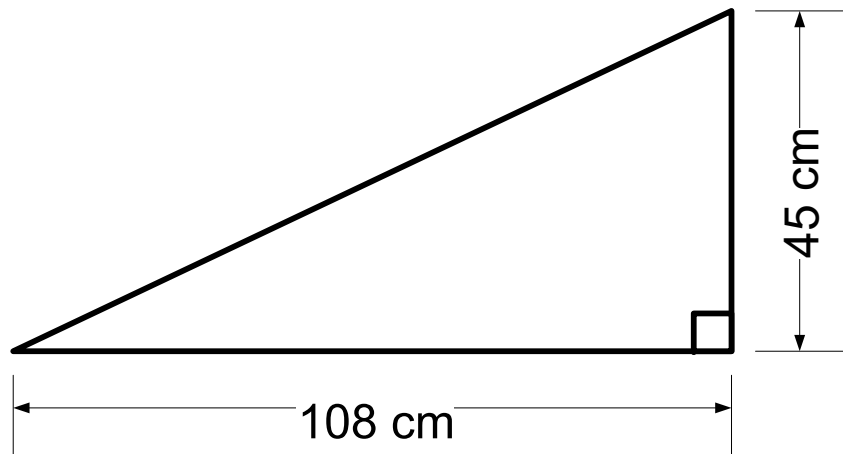**Fill in the table for the co-ordinates for $y=12 - x$ for $-3 \leq x \leq 5$**

x	-3	-2	-1	0	1	2	3	4	5
y	15				11				7

Give the coordinates of the y intercept. $\left(\underline{\quad}, \underline{\quad}\right)$

Look at the pattern made from the squares.

Which pattern has 36 squares?

What is the perimeter of the triangle?

$$\frac{9}{10} \div \frac{2}{3} =$$

$$\frac{9}{10} \times \frac{2}{3} =$$

$$\frac{9}{10} + \frac{2}{3} =$$

$$\frac{9}{10} - \frac{2}{3} =$$