Identify angles

1 Complete the sentences.

Use the word bank to help you.

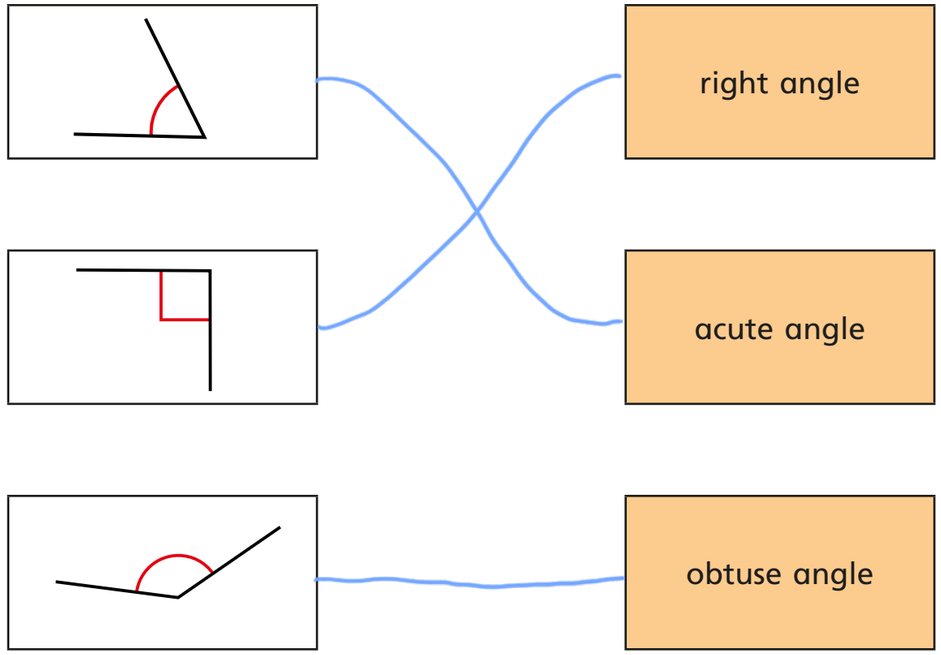
90	180	greater	less

a) A right angle is [90] degrees.

b) An acute angle is less than [90] degrees.

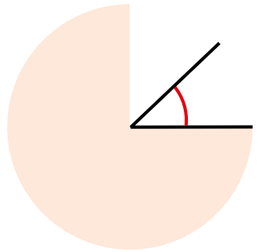
c) An obtuse angle is greater than [90] degrees but less than [180] degrees.

2 Match the angles to the labels.



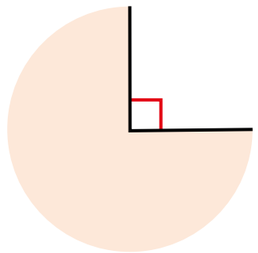
3 Label the angles: acute, obtuse or right angle.

a)



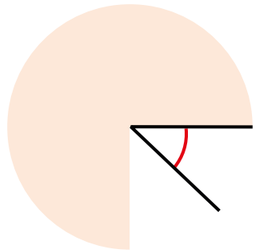
acute

b)



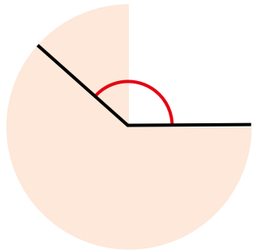
right angle

c)



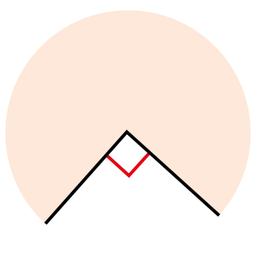
acute

d)



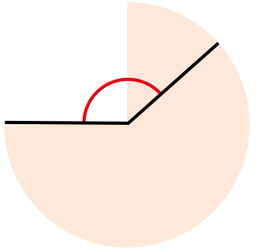
obtuse

e)



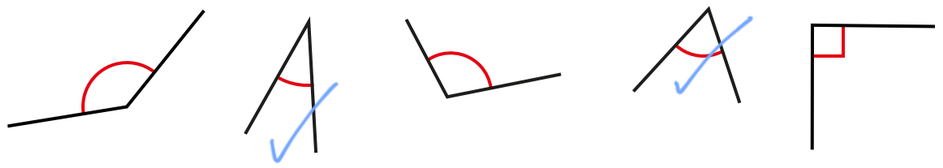
right angle

f)



obtuse

4 Tick all the acute angles.



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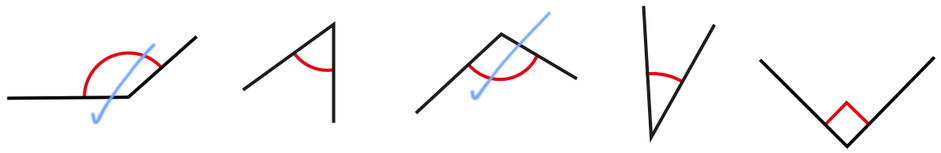
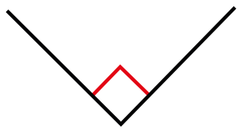
5 Tick all the obtuse angles.



6 Label the angles: acute, obtuse or right angle.

a)

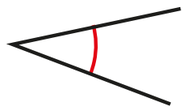


right angle

b)

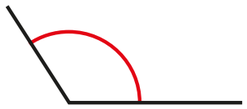
obtuse

c)



acute

d)



obtuse

7 Is the angle acute, obtuse or a right angle?

a) 35° acute

b) 99° obtuse

c) 90° right angle

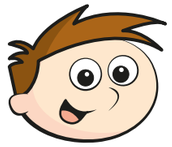
d) 89° acute

e) 121° obtuse

f) 179° obtuse

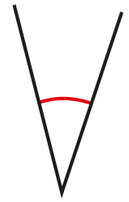
How do you know?

8



A

B



Do you agree with Teddy? No

Explain your answer.

9 Are the statements always true, sometimes true or never true?

Explain your answer.

a) An obtuse angle is a greater turn than an acute angle.

Always. Obtuse angles are greater than 90° therefore greater than acute angles which are less than 90°.

b) An acute angle is a greater turn than a right angle turn.

Never. Acute angles are less than 90° ie. less than a right angle.

c) If you turn through two acute angles you will have turned through an obtuse angle.

Sometimes. E.g. 12° + 12° = 24° (acute) but 50° + 50° = 100° (obtuse)

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Compare and order angles

1 Here are two angles.

A

B

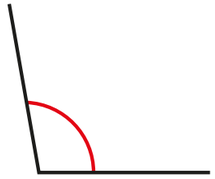
a) Which angle is obtuse? B

b) Which angle is acute? A

How do you know?

2 Here are two angles.

X



Y

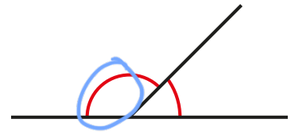
a) What type of angle is angle X? obtuse

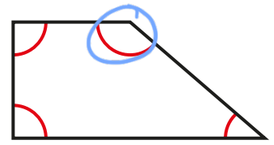
b) What type of angle is angle Y? obtuse

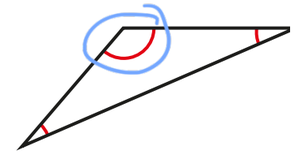
c) Which angle is smaller? Y

How do you know?

3 Circle the greatest angle in each diagram.

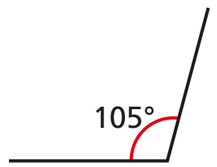






4 Here is an angle.

e.g.



e.g.

a) Draw a smaller angle than 105° in the box on the left.

b) Draw a greater angle than 105° in the box on the right.

c) Is this statement true or false?

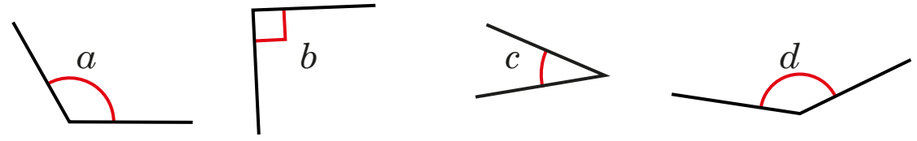
The angles are in ascending order of size.

true

Explain your answer.

5 Order the angles from greatest to smallest.

a)



d a b c

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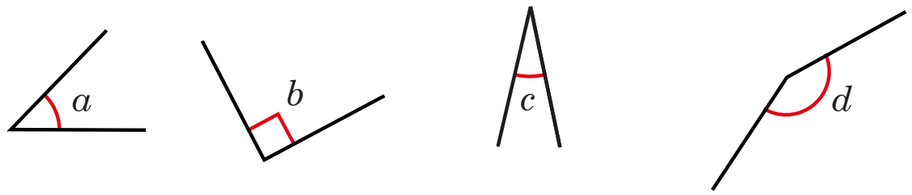
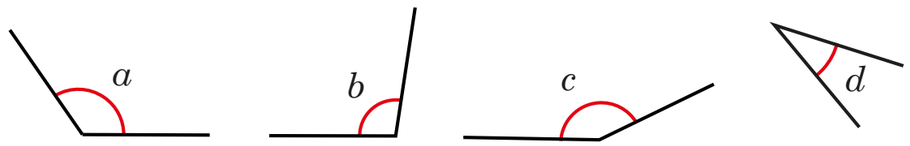
b)



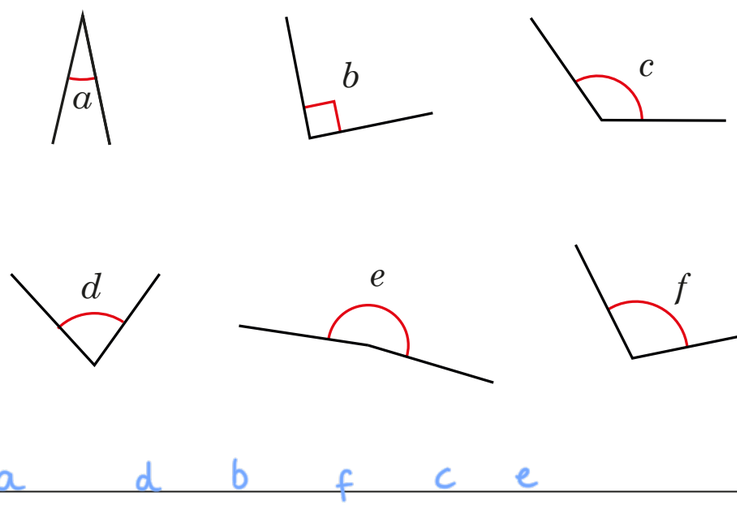
d b a c

c)



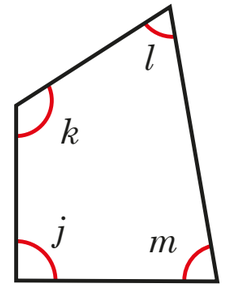
c a b d

6 Compare and order the angles from smallest to greatest.



a d b f c e

7 Four angles are labelled in the quadrilateral.



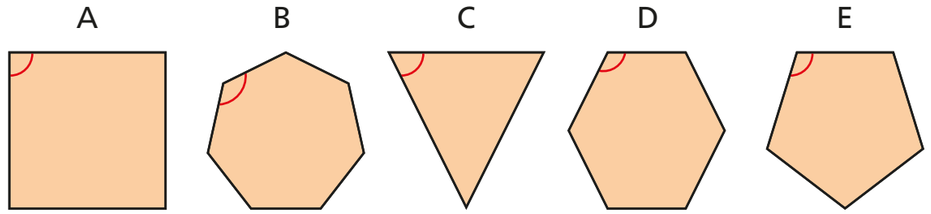
a) Which of the angles are acute angles? l m

b) Which of the angles are obtuse angles? k

c) Write the angles in order of size, starting with the smallest.

l m j k

8 An interior angle is marked in each polygon.



Order the interior angles of the polygons from smallest to greatest.

C A E D B

What do you notice about the number of sides a polygon has and the size of its interior angle?

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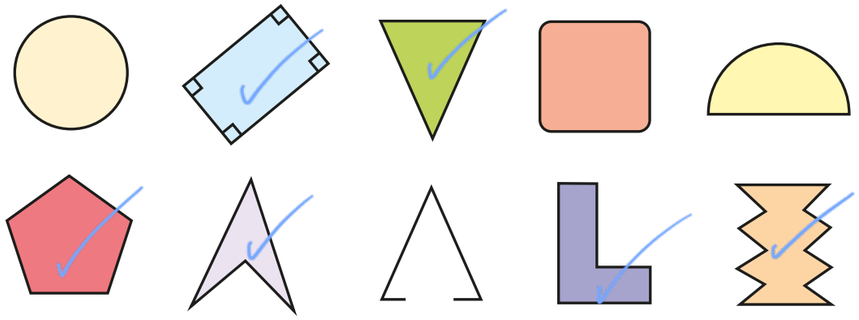
Triangles

1 Here are some shapes.



a) Tick the polygons.

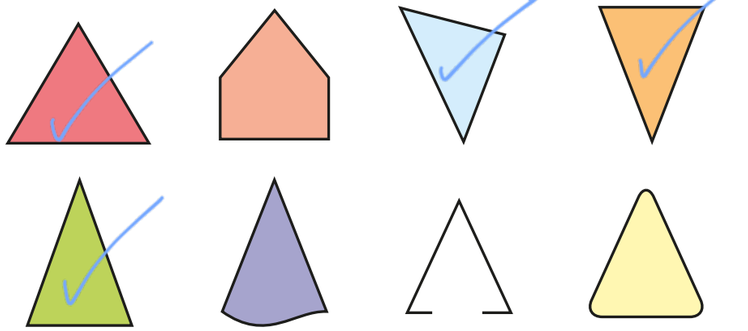
b) Talk to a partner about the shapes you have not ticked.
Why are they not polygons?

c) Write a definition of a polygon.

A closed shape made up of straight sides.

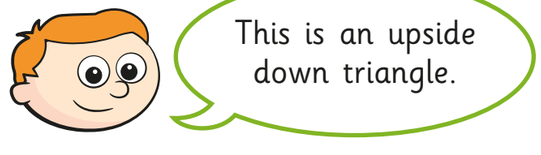
Compare your definition with a partner's.

2 Tick the triangles.



For any shapes you have not ticked, talk to a partner about why somebody might think they are triangles.

3 Ron is classifying triangles.



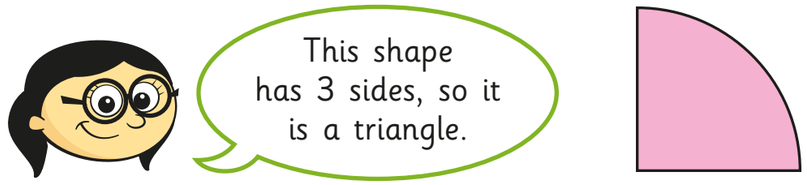
a) Ron is incorrect.

Explain why.

A triangle cannot be upside down.

b) What type of triangle is it? equilateral

4 Annie is identifying shapes.



Do you agree with Annie? No

Explain your answer.

A triangle has three straight sides this shape does not.

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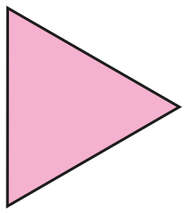
5 Match the type of triangle to the definition.

scalene	2 sides and 2 angles equal
equilateral	no sides or angles equal
isosceles	all sides and all angles equal

6 Label each triangle as either equilateral, isosceles or scalene.

You will need to measure the side lengths.

A

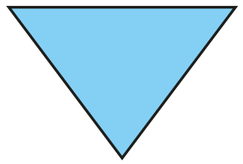


equilateral

B

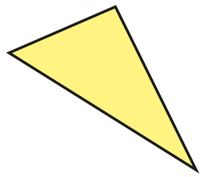
isosceles

C



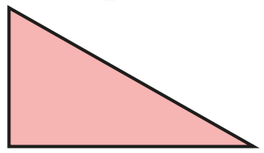
isosceles

D



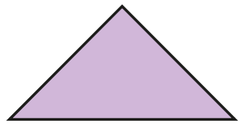
scalene

E



scalene

F

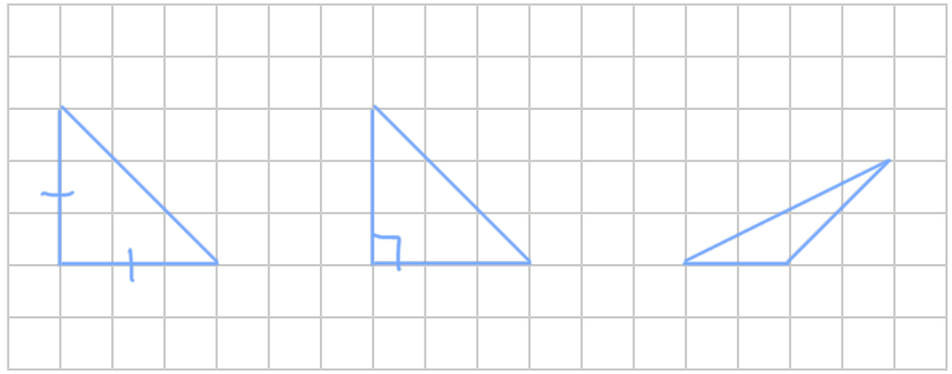


isosceles

7 Draw each triangle in the grid.

a) isosceles **b)** right-angled **c)** scalene

e.g.

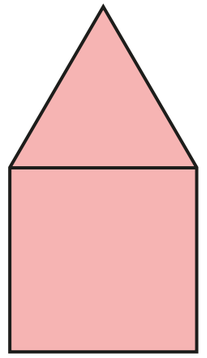


Which triangle was hardest to draw?

8 The diagram shows an equilateral triangle and a square.

The perimeter of the square is 100 cm.

Work out the perimeter of the compound shape.



perimeter = 125 cm

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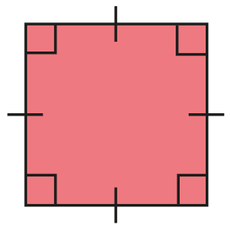
Quadrilaterals

1 Use the word bank to label each quadrilateral.

rhombus | parallelogram | trapezium | rectangle | square

a)

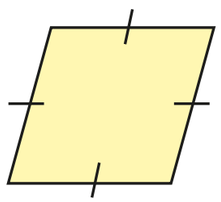


square

b)

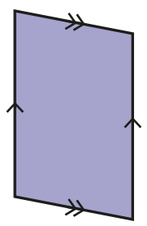
rectangle

c)



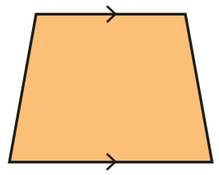
rhombus

d)



parallelogram

e)

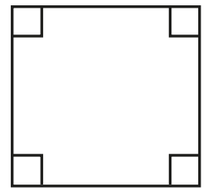


trapezium

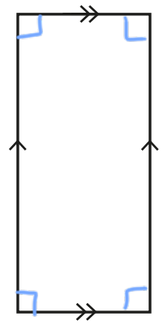
How did you know which shape was which?

2 Here are some quadrilaterals.

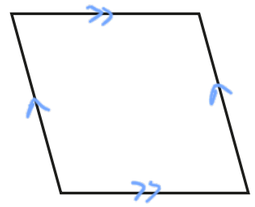
A



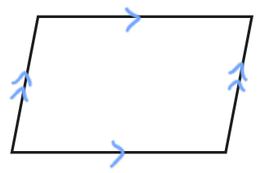
B



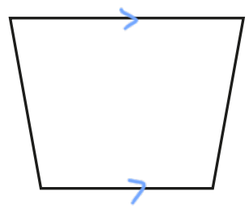
C



D



E



a) Mark any right angles on the shapes.
One shape has been done for you.

b) Mark any pairs of parallel lines.
One shape has been done for you.

c) Which shapes do not have any right angles?

C D E

d) Which shapes have two pairs of parallel lines?

B C D

e) Which shapes have four equal sides?

A C

Compare answers with a partner.

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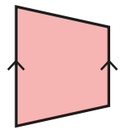
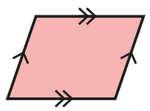
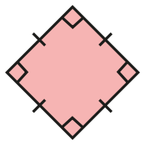
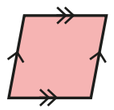
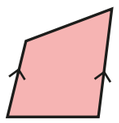
3 Complete the table.

Shape	Polygon?	Number of sides	Number of right angles	Number of pairs of parallel sides	Number of equal sides
	Yes	4	4	2	2 pairs
	Yes	4	0	1	2
	Yes	4	0	2	2 pairs
	Yes	4	4	2	4
	Yes	4	0	2	4
	Yes	4	0	1	0

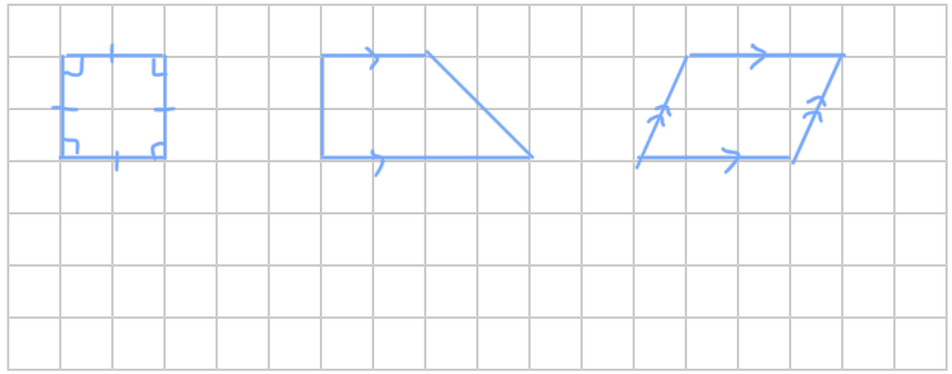
What is the same about all of the shapes?

What is different?

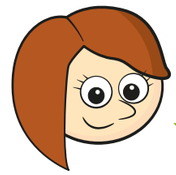
4 Draw the shapes on the grid.

a) square **b)** trapezium **c)** parallelogram

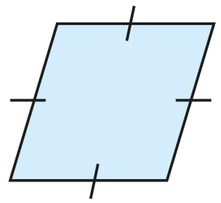
e.g.



5



This is a square because it has got 4 equal sides.



Do you agree with Rosie? No

Explain your answer.

6 Complete this Frayer Model to describe a quadrilateral.

e.g.

My definition	Key characteristics
A closed shape with four straight sides.	closed shape 4 straight sides 4 vertices
Quadrilateral	
Example	**Non-example**
	

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