

Examples

Workout



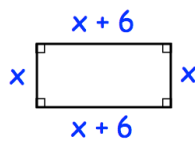
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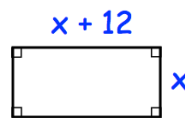
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Question 1: For each rectangle below, find  $x$ . Then use  $x$  to find the length and width of each. The expressions for lengths and widths are in centimetres.

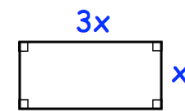
(a) Perimeter = 24cm



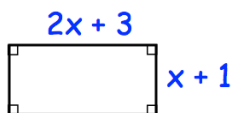
(b) Perimeter = 56cm



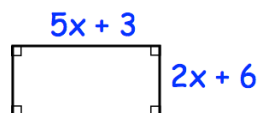
(c) Perimeter = 88cm



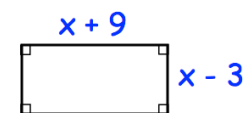
(d) Perimeter = 38cm



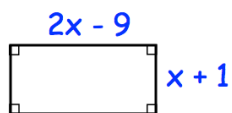
(e) Perimeter = 158cm



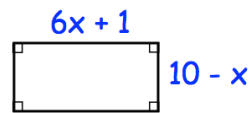
(f) Perimeter = 60cm



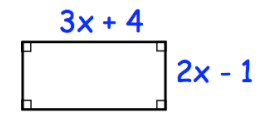
(g) Perimeter = 2m



(h) Perimeter = 82cm

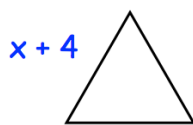


(i) Perimeter = 40cm

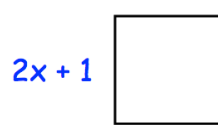


Question 2: Each shape below is regular. For each, find  $x$  and the length of each side.

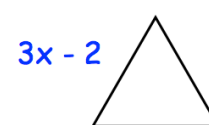
(a) Perimeter = 27cm



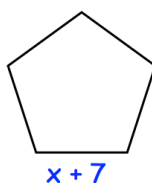
(b) Perimeter = 52cm



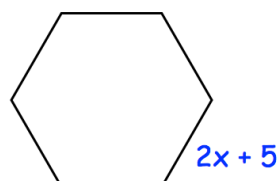
(c) Perimeter = 93cm



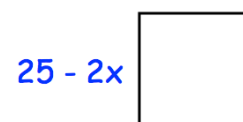
(d) Perimeter = 75cm



(e) Perimeter = 102cm



(f) Perimeter = 64cm

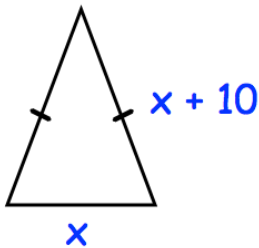


## Equations: angles/perimeter

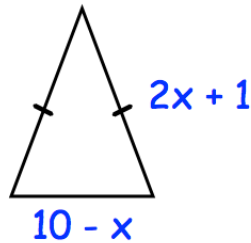
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Question 3: For each shape below, find  $x$ .

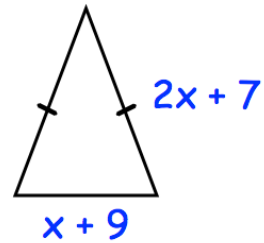
(a)  
Perimeter = 38cm



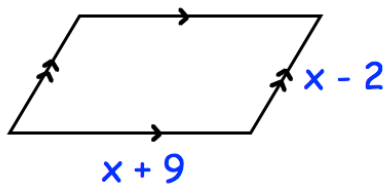
(b)  
Perimeter = 30cm



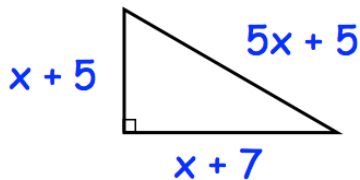
(c)  
Perimeter = 85.5cm



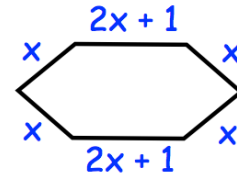
(d)  
Perimeter = 46cm



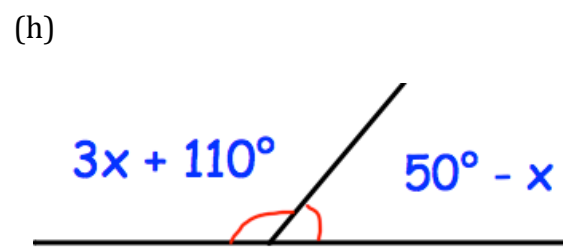
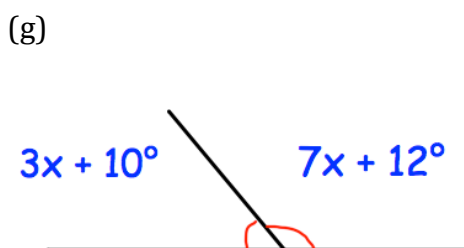
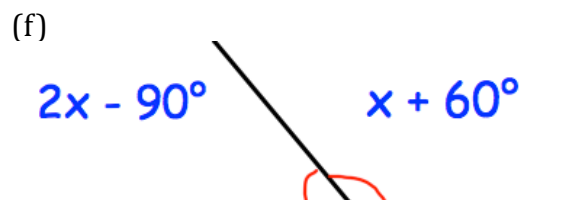
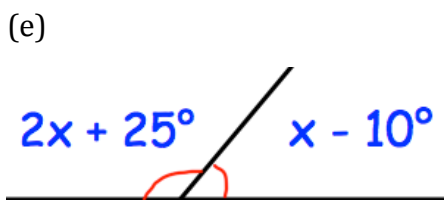
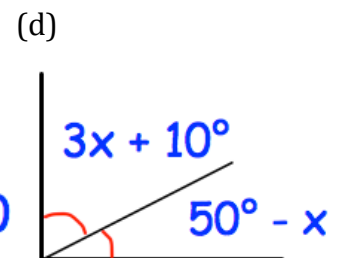
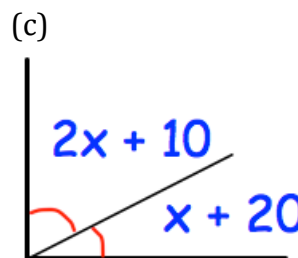
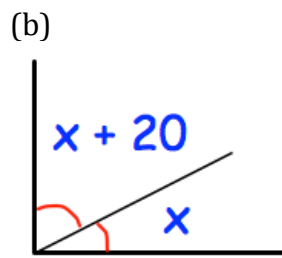
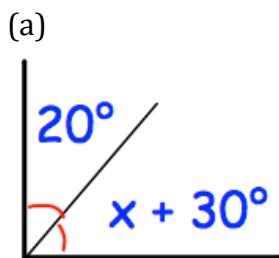
(e)  
Perimeter = 24cm



(f)  
Perimeter = 162cm



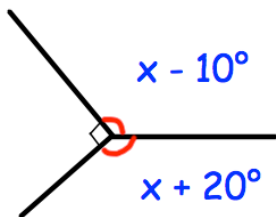
Question 4: Calculate  $x$  in each of these diagrams.



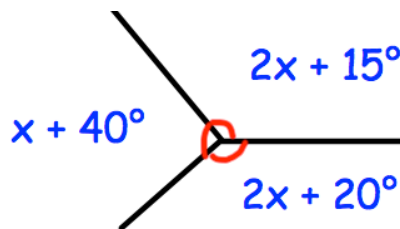
# Equations: angles/perimeter

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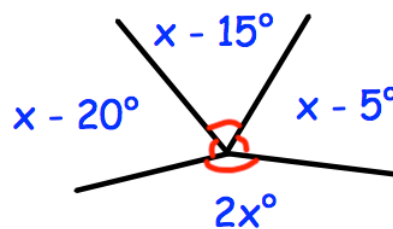
(i)



(j)

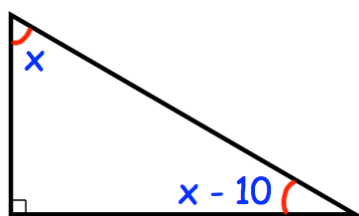


(k)

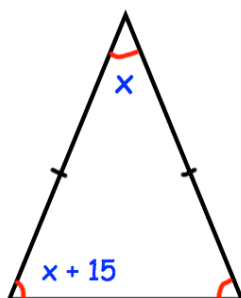


Question 5: Calculate  $x$  in each of these diagrams.

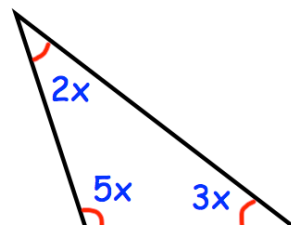
(a)



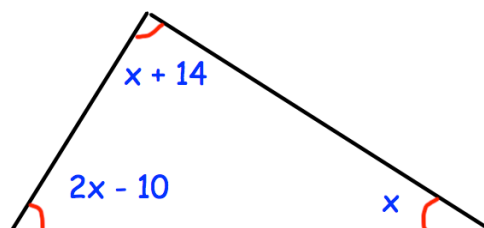
(b)



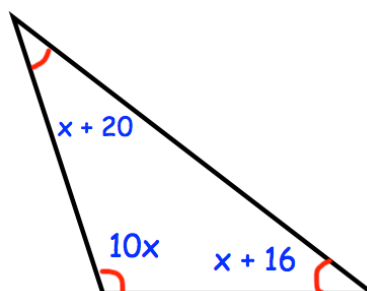
(c)



(d)

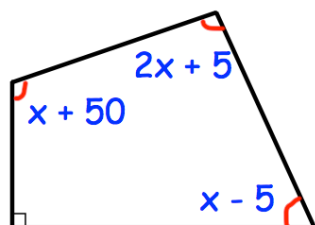


(e)

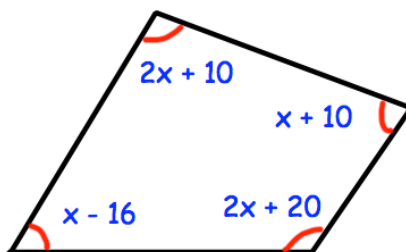


Question 6: Calculate  $x$  in each of these diagrams.

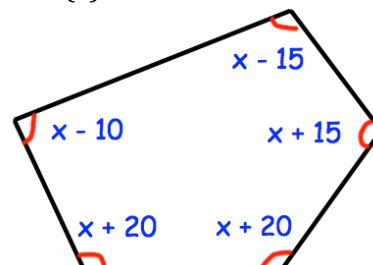
(a)



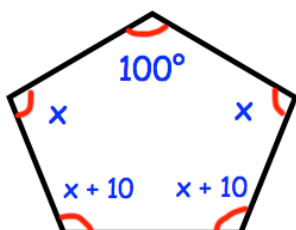
(b)



(c)

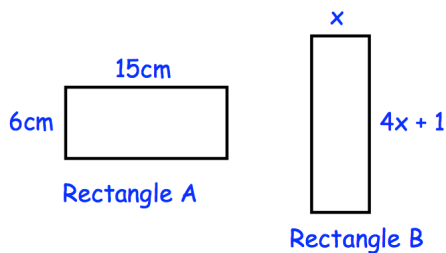


(d)

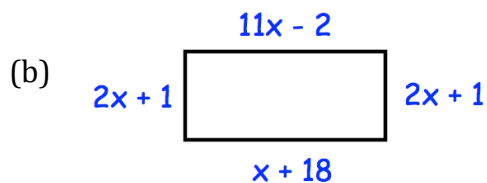
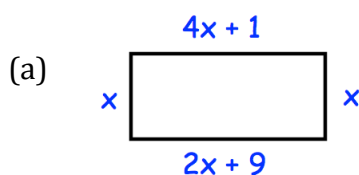


## Apply

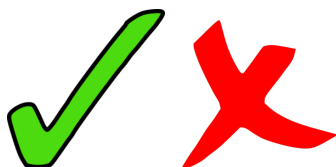
- Question 1: A rectangle is 5cm longer than it is wide.  
The perimeter of the rectangle is 86cm.  
How long is the rectangle?
- Question 2: A rectangle is 8cm longer than it is wide.  
The perimeter of the rectangle is 72cm.  
How wide is the rectangle?
- Question 3: Each side of an isosceles triangle is 4cm longer than the base.  
The perimeter of the triangle is 44cm.  
How long is the base of the triangle?
- Question 4: Three angles form a straight line.  
The two smaller angles are equal.  
The largest angle is three times larger than each of the smaller angles.  
Work out the size of each of the three angles.
- Question 5: Simon draws a right angled triangle.  
One angle is  $90^\circ$ .  
Of the other two angles, one is  $22^\circ$  larger than the other.  
Work out the size of the smallest angle.
- Question 6: Below both rectangles have the same perimeter.  
Find the area of rectangle B.



- Question 7: Find the perimeters of the rectangles below.  
The expressions for the lengths and widths are in centimetres.



Answers



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