

1D Geometry and Length - Lesson 2

Perimeter

LI

- Calculate the perimeter of a shape made of straight lines only.

SC

- + whole numbers.

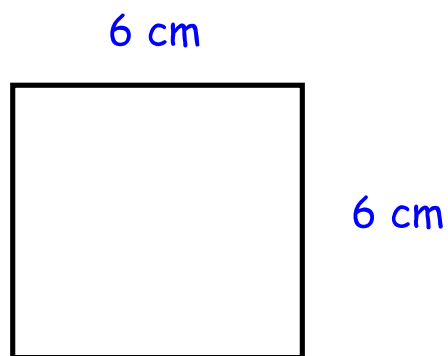
Literacy Links :

The word 'perimeter' comes from the Greek word 'perimetron' (about/around measure)

The perimeter of a 2D shape is the total distance once around the shape

Example 1

Calculate the perimeter of this shape :

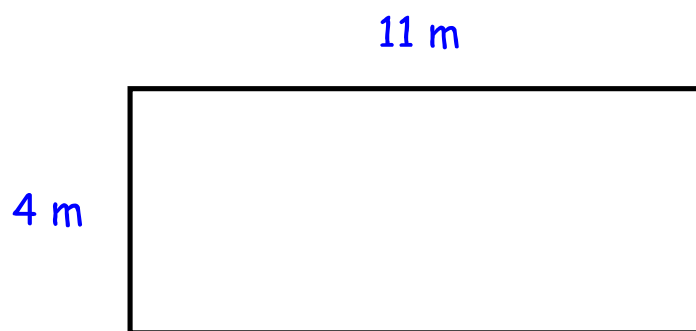


$$P = 6 + 6 + 6 + 6$$

$$P = 24 \text{ cm}$$

Example 2

Calculate the perimeter of this shape :

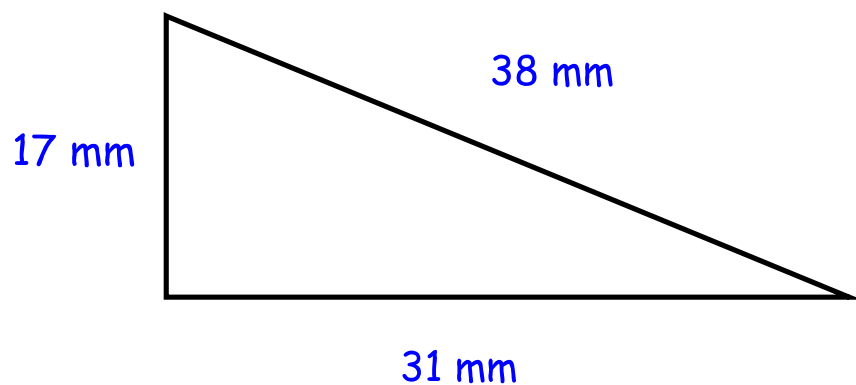


$$P = 4 + 4 + 11 + 11$$

$$P = 30 \text{ m}$$

Example 3

Calculate the perimeter of this shape :



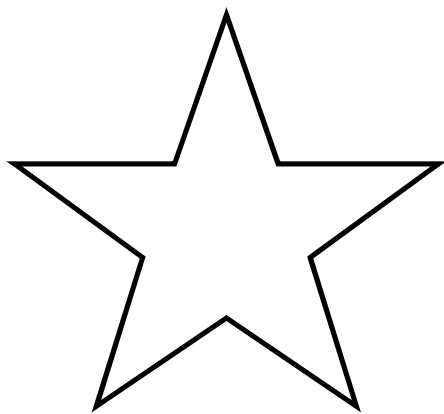
$$P = 17 + 38 + 31$$

$$\begin{array}{r} 17 \\ 38 \\ + 31 \\ \hline 86 \\ \hline 1 \end{array}$$

$$P = 86 \text{ mm}$$

Example 4

Calculate the perimeter of this shape :



All sides are 3 mm long

$$P = 3 \times 10$$

$$P = 30 \text{ mm}$$

Example 5

A triangle has two sides of length 17 cm and 9 cm. If the perimeter is 48 cm, what is the length of the third side ?

$$P = 17 + 9 + L$$

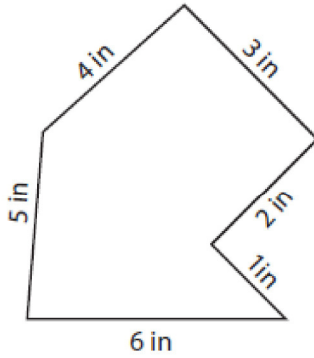
$$48 = 26 + L$$

$$L = 48 - 26$$

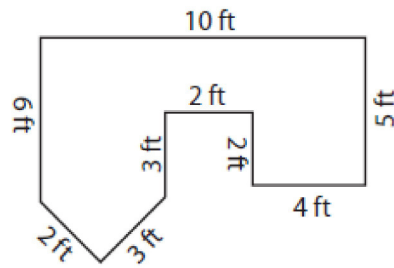
$$\begin{array}{r} 48 \\ - 26 \\ \hline 22 \end{array}$$

$$L = 22 \text{ cm}$$

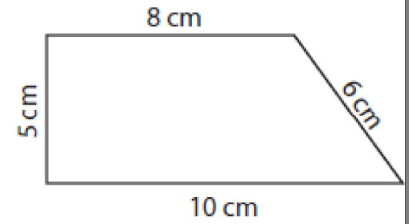
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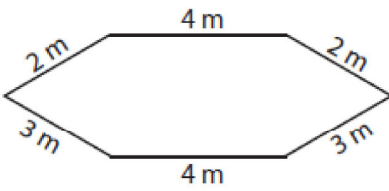
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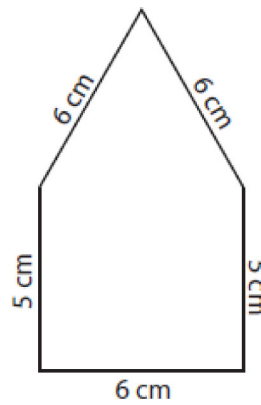
3)



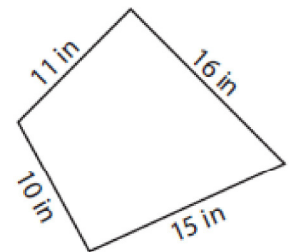
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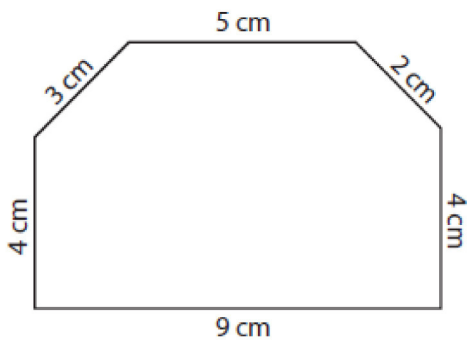
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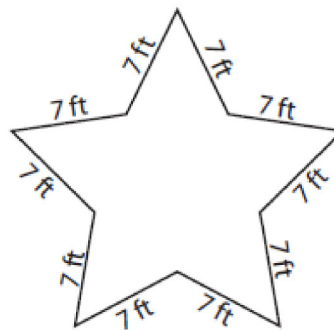
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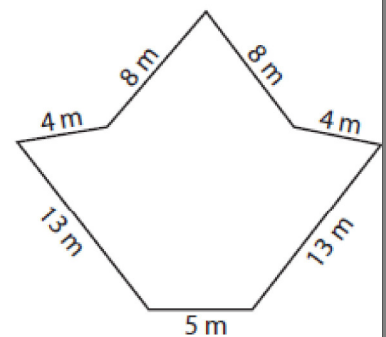
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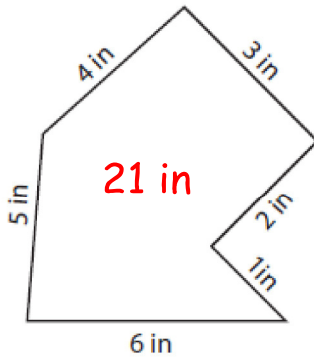
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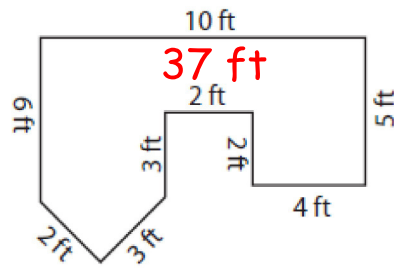
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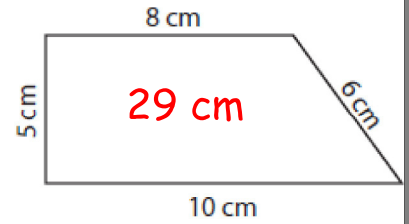
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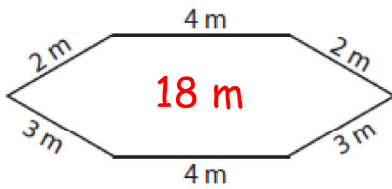
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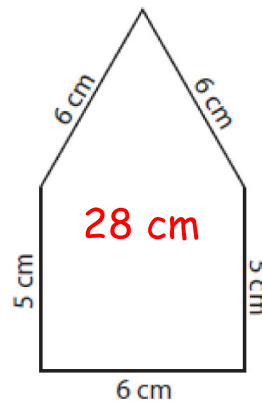
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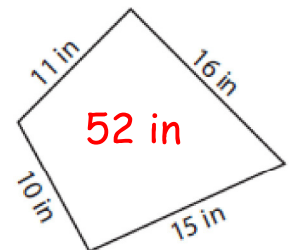
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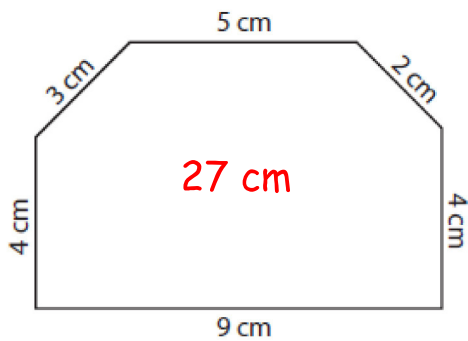
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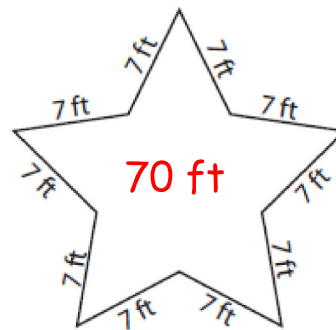
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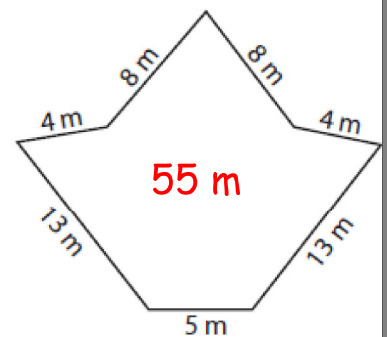
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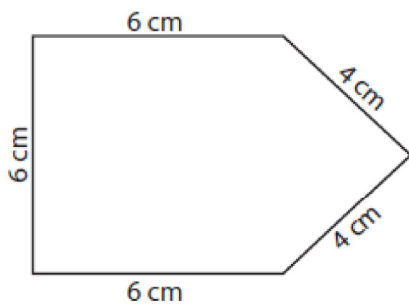
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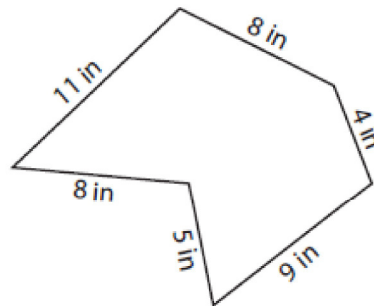
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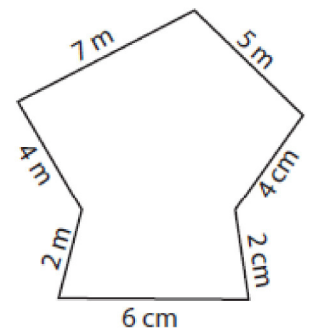
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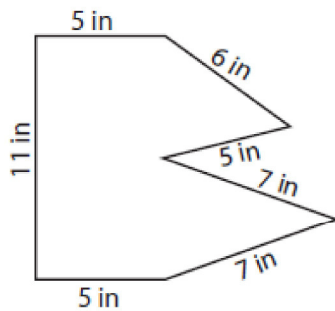
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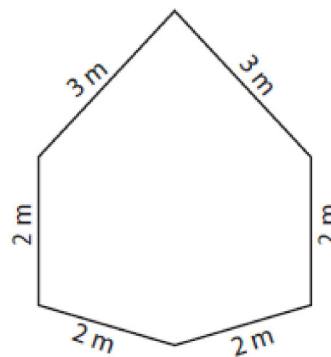
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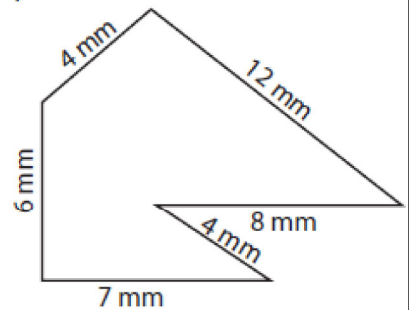
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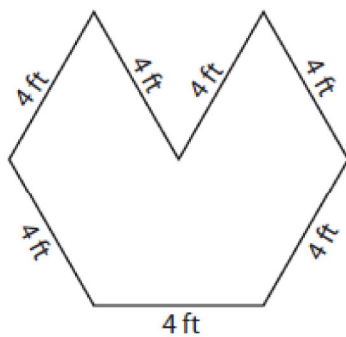
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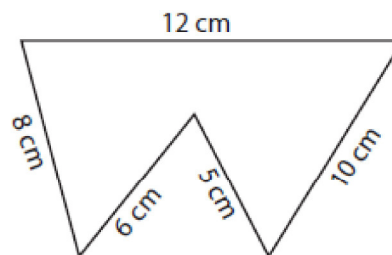
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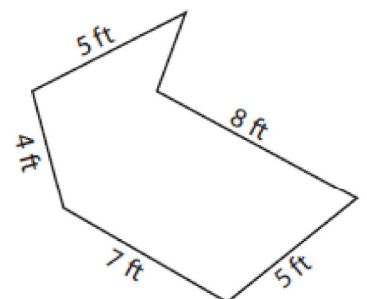
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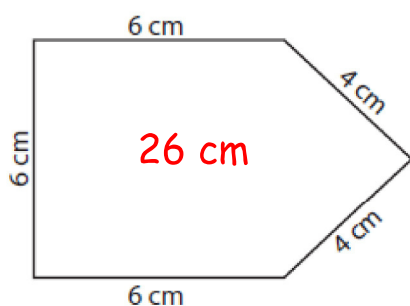
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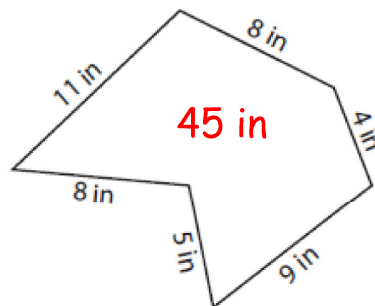
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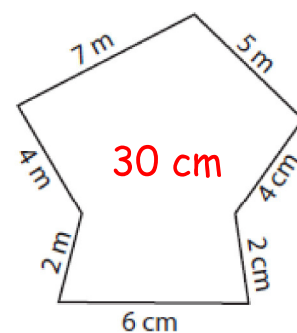
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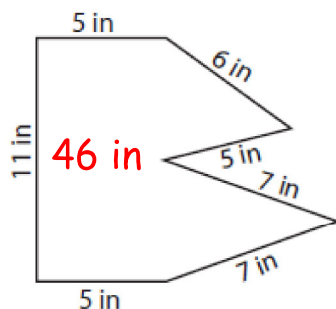
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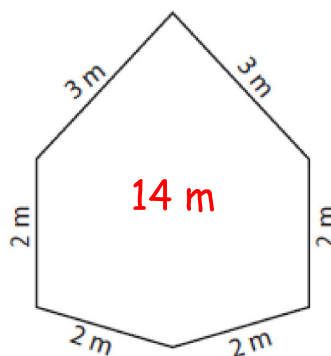
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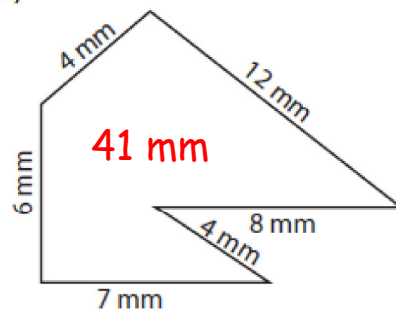
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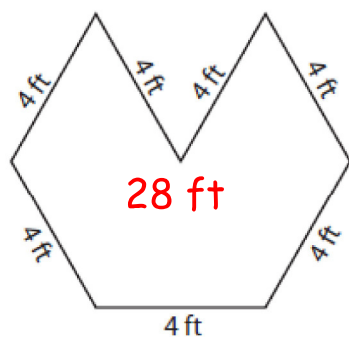
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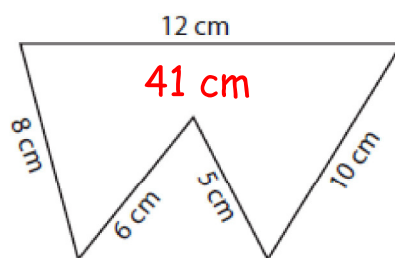
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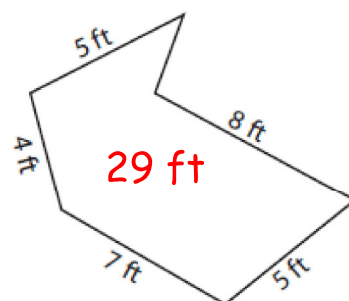
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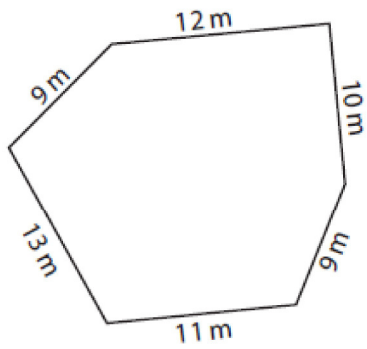
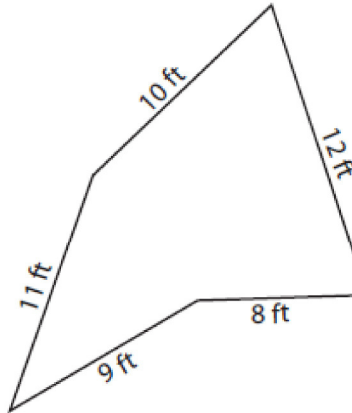
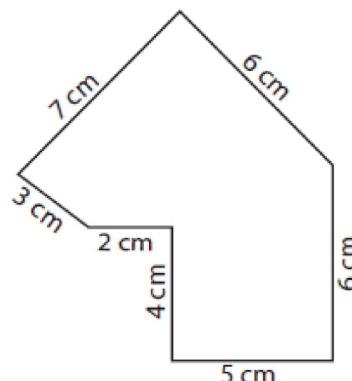
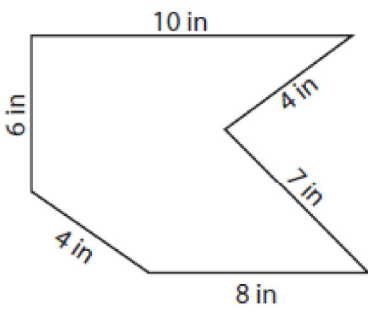
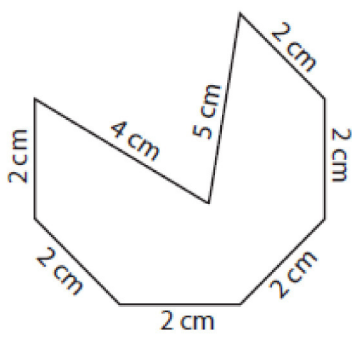
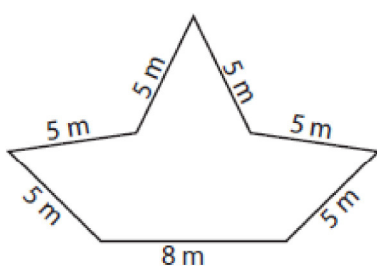
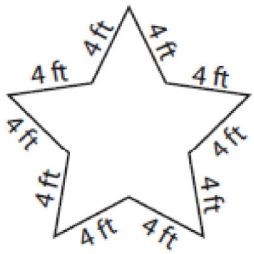
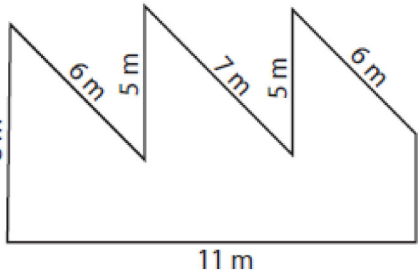
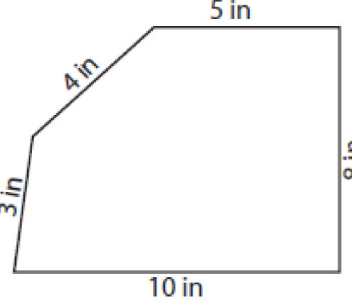


8)



9)



<p>1)</p> 	<p>2)</p> 	<p>3)</p> 
<p>4)</p> 	<p>5)</p> 	<p>6)</p> 
<p>7)</p> 	<p>8)</p> 	<p>9)</p> 

<p>1)</p> <p>64 m</p>	<p>2)</p> <p>50 ft</p>	<p>3)</p> <p>33 cm</p>
<p>4)</p> <p>39 in</p>	<p>5)</p> <p>21 cm</p>	<p>6)</p> <p>38 m</p>
<p>7)</p> <p>40 ft</p>	<p>8)</p> <p>52 m</p>	<p>9)</p> <p>30 in</p>

1. Find the perimeter of a pentagon when each side is 20cm long.
2. What is the length of the third side of a triangle if one side measures 10 cm, the second measures 15 cm and the perimeter is 45cm?
3. Calculate the perimeter of a shape whose sides measure 8cm, 4cm, 9cm, 5cm and 10cm.
4. I need to buy enough fencing to go all around my rectangular garden. The garden is 30 m long by 4m wide. How many meters of fencing will I need?
5. How long is each side of a square if the perimeter is 100cm?
6. Find the perimeter of a rectangle that measures 42cm by 19cm.
7. Calculate the perimeter of a shape whose sides measure 3m, 12.5m, 4.5m, 5m, and 25m.
8. Each side of a triangle measures 56cm. What is its perimeter?
9. How wide is a rectangle if the length is 60cm and the perimeter is 180cm?
10. The perimeter of a square is 600cm? How long is each side?

- 100 cm 1. Find the perimeter of a pentagon when each side is 20cm long.
- 20 cm 2. What is the length of the third side of a triangle if one side measures 10 cm, the second measures 15 cm and the perimeter is 45cm?
- 36 cm 3. Calculate the perimeter of a shape whose sides measure 8cm, 4cm, 9cm, 5cm and 10cm.
- 68 m 4. I need to buy enough fencing to go all around my rectangular garden. The garden is 30 m long by 4m wide. How many meters of fencing will I need?
- 25 cm 5. How long is each side of a square if the perimeter is 100cm?
- 122 cm 6. Find the perimeter of a rectangle that measures 42cm by 19cm.
- 50 m 7. Calculate the perimeter of a shape whose sides measure 3m, 12.5m, 4.5m, 5m, and 25m.
- 168 cm 8. Each side of a triangle measures 56cm. What is its perimeter?
- 30 cm 9. How wide is a rectangle if the length is 60cm and the perimeter is 180cm?
- 150 cm 10. The perimeter of a square is 600cm? How long is each side?

R E C A P

Shape	Perimeter

100 mm

Square of side 50 mm

20 cm

Rectangle of sides 20 mm and 5 cm

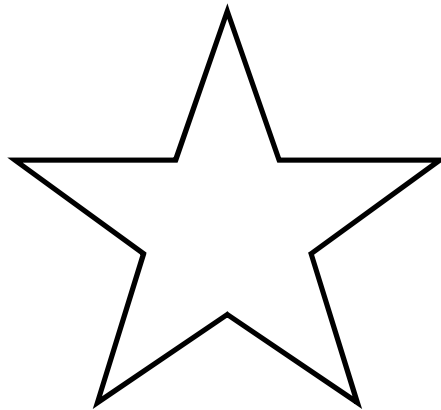
140 mm

Square of side 4 cm

Square of side 2 . 5 cm

H O M E W O R K

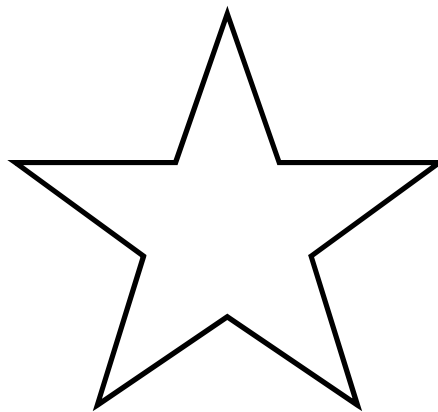
Calculate the perimeter of this shape in cm :



All sides are 9.7 mm long

H O M E W O R K

Calculate the perimeter of this shape in cm :



All sides are 9.7 mm long

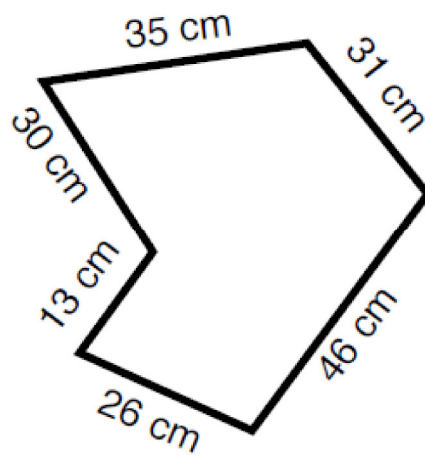
$$P = 9.7 \times 10$$

$$P = 97 \text{ mm}$$

$$P = 9.7 \text{ cm}$$

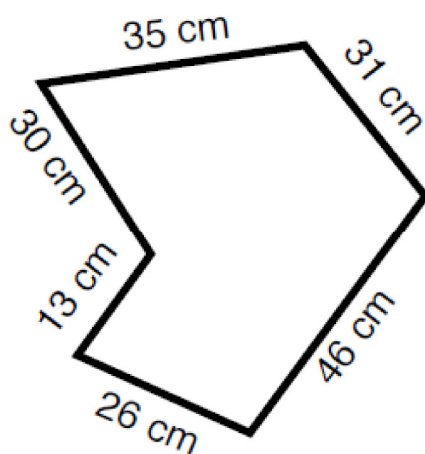
H O M E W O R K

Find the perimeter of this shape :



H O M E W O R K

Find the perimeter of this shape :



$$\begin{array}{r} 35 \\ 31 \\ 46 \\ 26 \\ 13 \\ + 30 \\ \hline 181 \\ \hline \end{array}$$

$$P = 181 \text{ cm}$$

H O M E W O R K

(open-ended)

Use the internet to find out about the 'coastline paradox'.