Varied Fluency
Step 8: Calculate Perimeter

National Curriculum Objectives:

Mathematics Year 3: (3M7) Measure the perimeter of simple 2-D shapes

Differentiation:

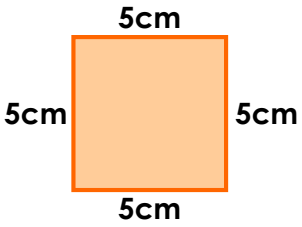
Developing Questions to support calculating the perimeter of regular polygons using cm where all the lengths are given.
Expected Questions to support calculating the perimeter of regular polygons, triangles and rectangles using cm or mm, where not all the lengths are given.
Greater Depth Questions to support calculating the perimeter of regular and irregular polygons where some conversions between mm and cm are used and where not all the lengths are given.

More Year 3 Length and Perimeter resources.

Did you like this resource? Don't forget to review it on our website.

Calculate Perimeter

1a. Complete the calculations to work out the perimeter of the square.



Not drawn to scale

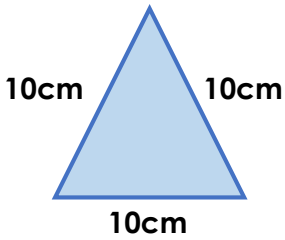
5cm + 5cm + 5cm + 5cm = ☐

5cm x 4 = ☐

D

VF

1b. Complete the calculations to work out the perimeter of the triangle.



Not drawn to scale

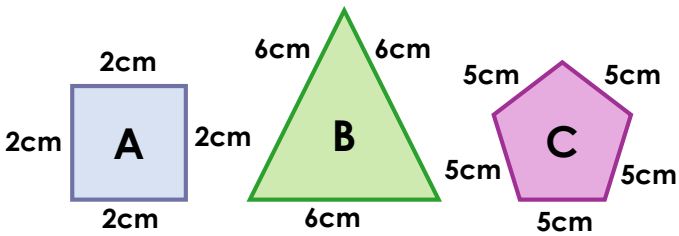
10cm + 10cm + 10cm = ☐

10cm x 3 = ☐

D

VF

2a. Match the shapes to their perimeters.



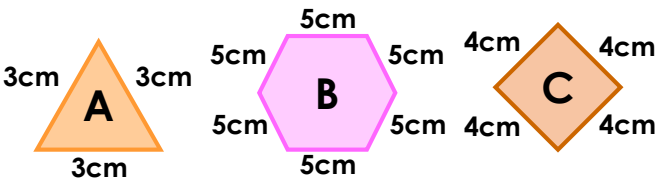
25cm	18cm	8cm

Not drawn to scale

D

VF

2b. Match the shapes to their perimeters.



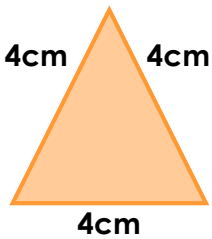
30cm	16cm	9cm

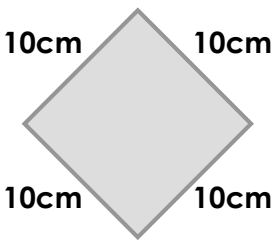
Not drawn to scale

D

VF

3a. Circle the calculation that does NOT find the perimeter of one of the shapes.





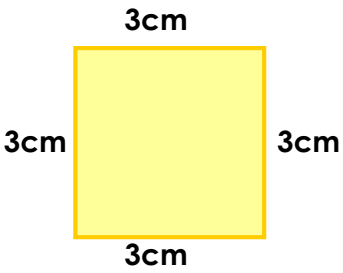
A. 10cm + 10cm + 10cm + 10cm	B. 4cm x 3
C. 4cm + 4cm + 4cm + 4cm	D. 10cm x 4

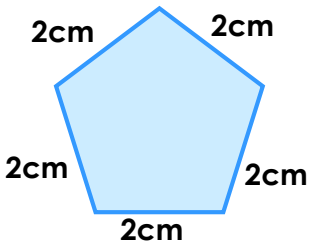
Not drawn to scale

D

VF

3b. Circle the calculation that does NOT find the perimeter of one of the shapes.





A. 2cm + 2cm + 2cm + 2cm + 2cm	B. 2cm x 4
C. 3cm x 4	D. 3cm + 3cm + 3cm + 3cm

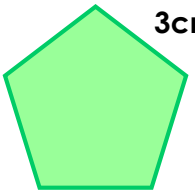
Not drawn to scale

D

VF

Calculate Perimeter

4a. Complete the calculations to work out the perimeter of the regular pentagon.



Not drawn to scale

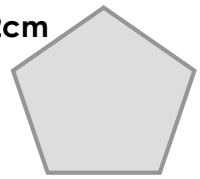
3cm + ☐ + ☐ + 3cm + ☐ = ☐

3cm x ☐ = ☐

VF

Calculate Perimeter

4b. Complete the calculations to work out the perimeter of the regular pentagon.



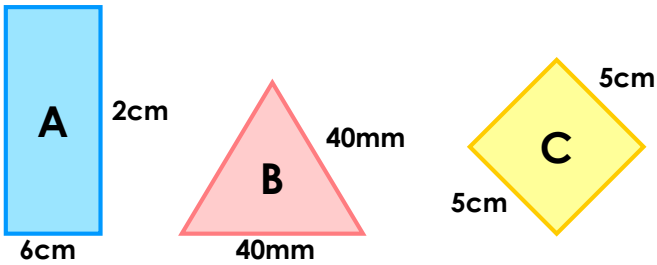
Not drawn to scale

☐ + 2cm + ☐ + 2cm + ☐ = ☐

☐ x 5 = ☐

VF

5a. Match the shapes to their perimeters.

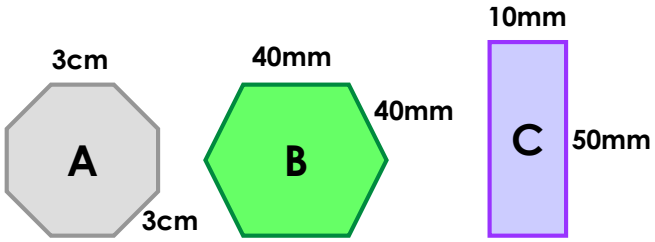


20cm	120mm	16cm

Not drawn to scale

VF

5b. Match the shapes to their perimeters.

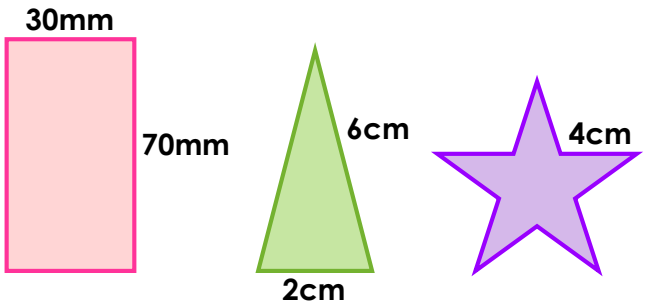


240mm	24cm	120mm

Not drawn to scale

VF

6a. Circle the calculation that does NOT find the perimeter of one of the shapes.

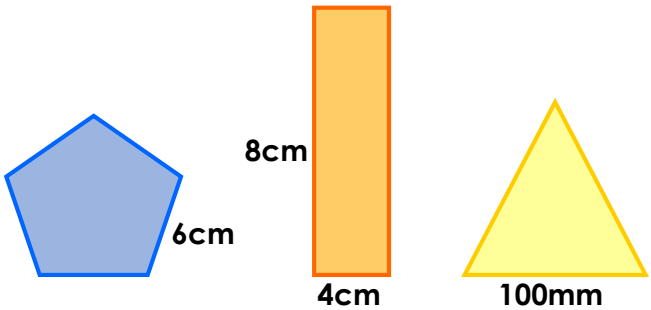


A. 4cm x 10	B. 6cm + 2cm + 6cm
C. 70mm + 70mm + 30mm + 30mm	D. 6cm x 2cm x 6cm

Not drawn to scale

VF

6b. Circle the calculation that does NOT find the perimeter of one of the shapes.



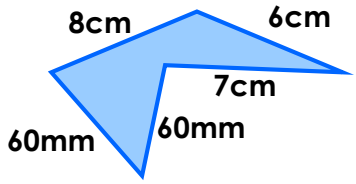
A. 8cm x 4	B. 100mm + 100mm + 100mm
C. 8cm + 8cm + 4cm + 4cm	D. 6cm x 5

Not drawn to scale

VF

Calculate Perimeter

7a. Complete the calculations to work out the perimeter of the irregular pentagon.



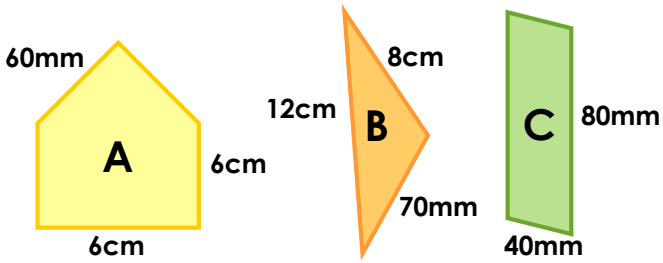
Not drawn to scale

☐ + 6cm + ☐ = 18cm

18cm + ☐ + ☐ = ☐

GD VF

8a. Match the shapes to their perimeters.

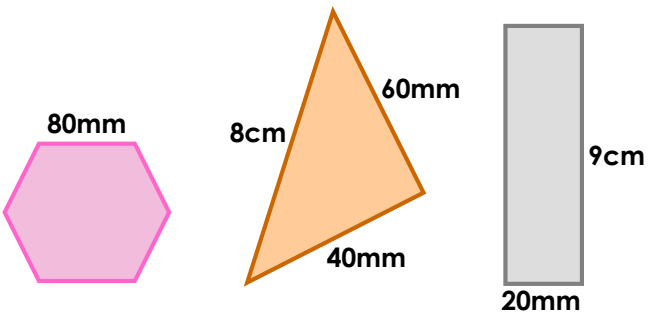


270mm	24cm	30cm

Not drawn to scale

GD VF

9a. Circle the calculation that does NOT find the perimeter of one of the shapes.



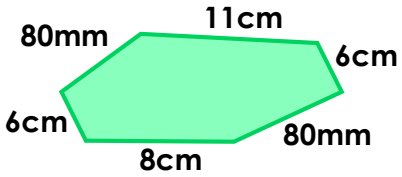
A. 9cm + 9cm + 20mm + 20mm	B. 29cm x 2
C. 8cm x 6	D. 40mm + 140mm

Not drawn to scale

GD VF

Calculate Perimeter

7b. Complete the calculations to work out the perimeter of the irregular hexagon.



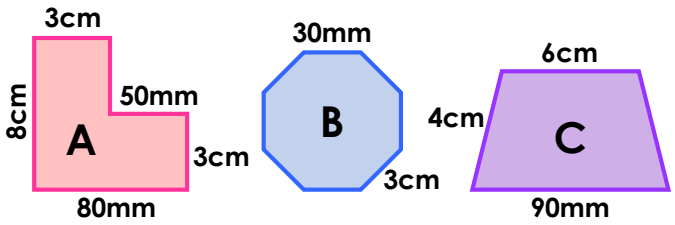
Not drawn to scale

☐ + 8cm + ☐ = 24cm

24cm + ☐ + ☐ + ☐ = ☐

GD VF

8b. Match the shapes to their perimeters.

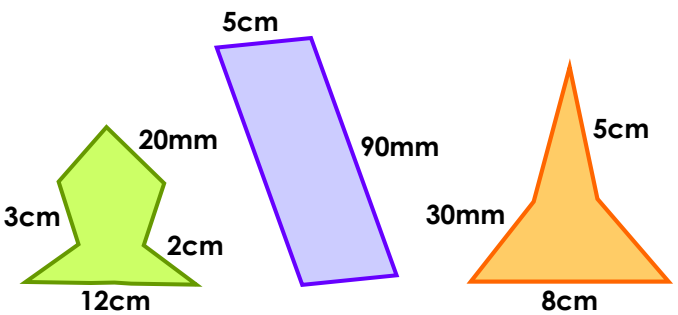


23cm	320mm	240mm

Not drawn to scale

GD VF

9b. Circle the calculation that does NOT find the perimeter of one of the shapes.



A. 180mm + 100mm	B. 80mm + 60mm + 100mm
C. 12cm + 4cm + 6cm + 4cm	D. 80mm + 30mm + 50cm

Not drawn to scale

GD VF

Varied Fluency
Calculate Perimeter

Developing

1a. 20cm, 20cm

2a. A = 8cm, B = 18cm, C = 25cm

3a. C

Expected

4a. 3cm + 3cm + 3cm + 3cm + 3cm = 15cm, 3cm x 5 = 15cm

5a. A = 16cm, B = 120mm, C = 20cm

6a. D

Greater Depth

7a. (in cm) 6cm + 6cm + 6cm = 18cm, 18cm + 7cm + 8cm = 33cm
(in mm) 60mm + 6cm + 60mm = 18cm, 18cm + 70mm + 80mm = 330mm

8a. A = 30cm, B = 270mm, C = 24cm

9a. B

Varied Fluency
Calculate Perimeter

Developing

1b. 30cm, 30cm

2b. A = 9cm, B = 30cm, C = 16cm

3b. B

Expected

4b. 2cm + 2cm + 2cm + 2cm + 2cm = 10cm, 2cm x 5 = 10cm

5b. A = 24cm, B = 240mm, C = 120mm

6b. A

Greater Depth

7b. (in cm) 8cm + 8cm + 8cm = 24cm, 24cm + 6cm + 6cm + 11cm = 47cm
(in mm) 80mm + 8cm + 80mm = 24cm 24cm + 60mm + 60mm + 110mm = 470mm

8b. A = 320mm, B = 240mm, C = 23cm

9b. D