

## Reasoning and Problem Solving Finding Unknown Lengths

### Developing

- 1a. Any combination of 7cm, for example:  
A = 1cm, B = 6cm; A = 2cm, B = 5cm; A = 3cm, B = 4cm; A = 4cm, B = 3cm.
- 2a. B. The perimeter of the triangle is 18cm. The perimeter of shapes A & C is 20cm.
- 3a. Alannah is correct. Aedan has not included the unknown lengths.

### Expected

- 4a. Any combination of 12cm, for example:  
A = 1cm, B = 11cm; A = 1.5cm, B = 10.5cm; A = 2cm, B = 10cm; A = 2.5cm, B = 9.5cm.
- 5a. B. The perimeter of the pentagon is 30cm. The perimeter of shapes A & C is 29cm.
- 6a. Connor is correct. Saskia has added the perimeter incorrectly.

### Greater Depth

- 7a. Any combination of 14cm or 140mm, for example: A = 4cm, B = 10cm; A = 40mm, B = 100mm; A = 3.5cm, B = 10.5cm.
- 8a. A. The perimeter of the rectilinear shape is 79cm. The perimeters of shapes B & C is 80cm.
- 9a. Evie is correct. Chao has made the conversions but has not included the unknown lengths.

## Reasoning and Problem Solving Finding Unknown Lengths

### Developing

- 1b. Any combination of 12cm, for example:  
A = 1cm, B = 11cm; A = 2cm, B = 10cm; A = 3cm, B = 9cm; A = 4cm, B = 8cm.
- 2b. A. The perimeter of the triangle is 27cm. The perimeter of shapes B & C is 30cm.
- 3b. Mayra is correct. Ruben has not included the unknown lengths.

### Expected

- 4b. Any combination of 9cm, for example:  
A = 1cm, B = 8cm; A = 1.5cm, B = 7.5cm; A = 2cm, B = 7cm; A = 2.5cm, B = 6.5cm.
- 5b. B. The perimeter of the rectilinear shape is 37mm. The perimeters of shapes A & C is 39mm.
- 6b. Aliya is correct. Marco has not included the unknown lengths.

### Greater Depth

- 7b. Any combination of 7cm or 70mm, for example: A = 1.5cm, B = 5.5cm; A = 20mm, B = 50mm; A = 3.5cm, B = 3.5cm.
- 8b. C. The perimeter of the heptagon is 52.5cm. The perimeters of shapes A & B is 51cm.
- 9b. Felix is correct. Litzy has not converted the measurements correctly.