Reasoning and Problem Solving Using Scale Factors

Developing

1a. 6cm

2a. No because the perimeter of the original shape is 16cm. The new perimeter would be 32cm.

3a. A: 3cm, B: 2cm, C: 5cm

Expected

4a. 10.6cm

5a. Yes because the perimeter of the original shape is 14.6cm. 14.6 x 4 = 58.4cm

6a. A: 2.2cm, B: 4.1cm, C: 3.2cm

Greater Depth

7a. 12.08cm

8a. Yes because the sides increase to 16.1cm and 7cm. 16.1cm x 7cm = 112.7cm²

9a. A: 4cm, B: 2cm, C: 3cm

Reasoning and Problem Solving Using Scale Factors

Developing

1b. 12cm

2b. Yes because the perimeter of the original shape is 18cm. The new perimeter would be 54cm.

3b. A: 4cm, B: 2cm,C: 3cm

Expected

4b. 12.4cm

5b. No because the perimeter of the original shape is 12cm. 12 x 4 = 48cm not 60cm. That is a scale factor of 5.

6b. A: 2.2cm, B: 4.3cm, C: 3.1cm

Greater Depth

7b. 11.32cm

8b. No because the sides increase to 10.6cm and 7.5cm. 10.6 x 7.5 = 79.5cm² not 50.88cm².

9b. A: 4cm, B: 3cm, C: 2cm

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