

The Heart and Soul of Similar Polygons (Big Idea Geometry 8 4 Proportionality Theorems)

Lesson 048 | Geometry | Similarity and proportions

<https://www.youtube.com/watch?v=fKWG1GzC55k>

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

Two similar polygons have corresponding lengths 7 and 49. The smaller has perimeter 54 and area 36. Find the larger perimeter and area.

02

Two similar polygons have corresponding lengths 13 and 65. The smaller has perimeter 35 and area 14. Find the larger perimeter and area.

03

Two similar polygons have corresponding lengths 14 and 84. The smaller has perimeter 72 and area 24. Find the larger perimeter and area.

The Heart and Soul of Similar Polygons (Big Idea Geometry 8 4 Proportionality Theorems)

Lesson 048 | Geometry | Similarity and proportions

<https://www.youtube.com/watch?v=fKWG1GzC55k>

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

04

Two similar polygons have corresponding lengths 8 and 24. The smaller has perimeter 104 and area 80. Find the larger perimeter and area.

05

Two similar polygons have corresponding lengths 4 and 8. The smaller has perimeter 42 and area 15. Find the larger perimeter and area.

06

Two similar polygons have corresponding lengths 11 and 66. The smaller has perimeter 15 and area 10. Find the larger perimeter and area.

The Heart and Soul of Similar Polygons (Big Idea Geometry 8 4 Proportionality Theorems)

Lesson 048 | Geometry | Similarity and proportions

<https://www.youtube.com/watch?v=fKWG1GzC55k>

Original practice aligned to the saved video title.

01

Two similar polygons have corresponding lengths 7 and 49. The smaller has perimeter 54 and area 36. Find the larger perimeter and area.

Length scale factor 7. Perimeter scales by 7: 378. Area scales by 7^2 : 1764.

02

Two similar polygons have corresponding lengths 13 and 65. The smaller has perimeter 35 and area 14. Find the larger perimeter and area.

Length scale factor 5. Perimeter scales by 5: 175. Area scales by 5^2 : 350.

03

Two similar polygons have corresponding lengths 14 and 84. The smaller has perimeter 72 and area 24. Find the larger perimeter and area.

Length scale factor 6. Perimeter scales by 6: 432. Area scales by 6^2 : 864.

The Heart and Soul of Similar Polygons (Big Idea Geometry 8 4 Proportionality Theorems)

Lesson 048 | Geometry | Similarity and proportions

<https://www.youtube.com/watch?v=fKWG1GzC55k>

Original practice aligned to the saved video title.

04

Two similar polygons have corresponding lengths 8 and 24. The smaller has perimeter 104 and area 80. Find the larger perimeter and area.

Length scale factor 3. Perimeter scales by 3: 312. Area scales by 3^2 : 720.

05

Two similar polygons have corresponding lengths 4 and 8. The smaller has perimeter 42 and area 15. Find the larger perimeter and area.

Length scale factor 2. Perimeter scales by 2: 84. Area scales by 2^2 : 60.

06

Two similar polygons have corresponding lengths 11 and 66. The smaller has perimeter 15 and area 10. Find the larger perimeter and area.

Length scale factor 6. Perimeter scales by 6: 90. Area scales by 6^2 : 360.