11-7 Areas and Volumes of Similar Solids – Pi-Day Color Match Activity SE

$\dfrac{A_1}{A_2} = \dfrac{a^2}{b^2}$

2

201.5

9:8

$\dfrac{A_1}{A_2} = \dfrac{a^2}{b^2}$

8

$\dfrac{A_1}{A_2} = \dfrac{a^2}{b^2}$

$\dfrac{A_1}{A_2} = \dfrac{a^2}{b^2}$

1:3

270

8

Similar

1:2

Scale

**GeometryCoach.com**
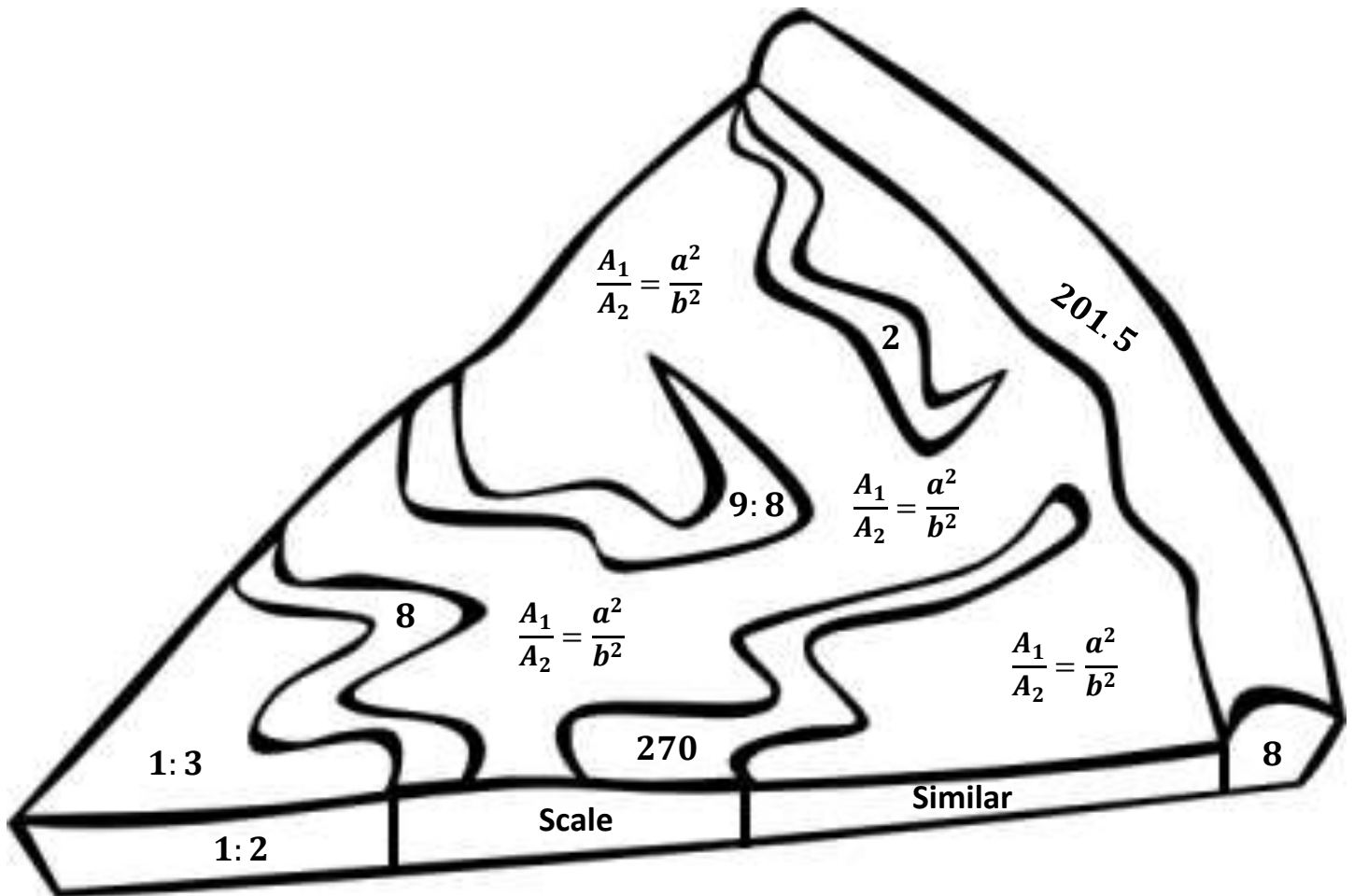
Directions: Answer the questions. Find your answer on the Pizza Pie. Then color according to your answers.

1. If the corresponding linear dimensions of two solids are proportional, the two solids are
_____. **(YELLOW)**

2. For two solids to be similar, all of their corresponding linear dimensions must have the same
_____ factor. **(PINK)**

3. The scale factor for the figures shown below is _____. **(LIGHT GREEN)**
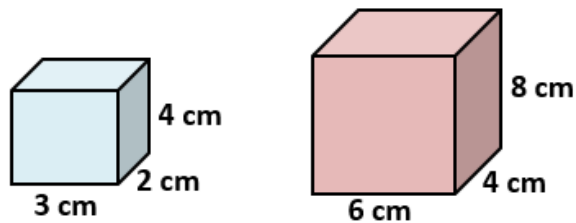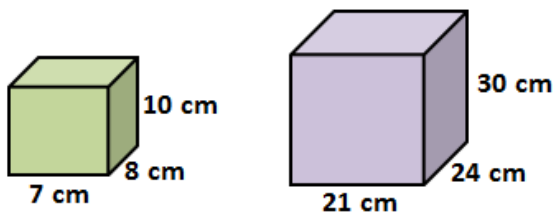

4. If the two solids have a similarity ratio $a : b$, then the ratio of their areas is mathematically as
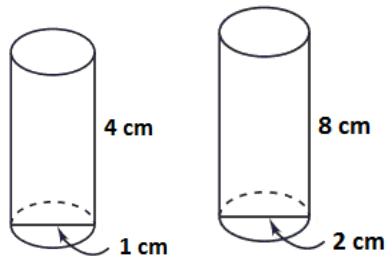_____. **(ORANGE)**

5. The two solids shown have a similarity ratio of 2 : 3. The surface area of the smaller solid is $120 \ cm^2$.
The area of the larger solid is _____ cm^2. **(BLUE)**
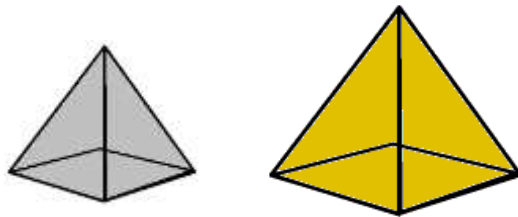
6. The similarity ratio for the figures given below is _____. **(RED)**

7. The similarity ratio for the figures given below is _____. **(BROWN)**

8. Two similar figures have areas $81\ m^2$ and $64\ m^2$. The similarity ratio is _____. **(GREEN)**

9. The surface areas of two similar solids are $144\ cm^2$ and $196\ cm^2$. The volume of the larger solid is $320\ cm^3$. The volume of the smaller solid is _____ cm^3. **(GREY)**

10. If the similarity ratio of the two similar figures is doubled, the ratio of their volumes is increased by _____ times. **(PURPLE)**