Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
**11-7 Areas and Volumes of Similar Solids – Pi-Day Color Match Activity SE**

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$$8$$

$$8$$

$$201.5$$

$$9:8$$

$$1:2$$

$$1:3$$

$$270$$

$$\frac{A\_{1}}{A\_{2}}=\frac{a^{2}}{b^{2}}$$

$$\frac{A\_{1}}{A\_{2}}=\frac{a^{2}}{b^{2}}$$

$$\frac{A\_{1}}{A\_{2}}=\frac{a^{2}}{b^{2}}$$

$$\frac{A\_{1}}{A\_{2}}=\frac{a^{2}}{b^{2}}$$

$$2$$

**Scale**

**Similar**

**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)**