Circles Worksheet 1 - Answer

Use the relationships $\frac{C}{C'} = \frac{d}{d'} = \frac{r}{r'}$ or $\frac{A}{A'} = \frac{d^2}{d'^2} = \frac{r^2}{r'^2}$ to solve the following problems. Round decimal answers to the tenths place unless otherwise instructed.

1. Given
$$\frac{C}{C'} = 0.25$$
 and $r = 3.0$ cm, find 6. Given $\frac{A}{A'} = 0.50$ and $d' = 3.0$ cm, find r . $r = 1.06$ cm

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$$\frac{A}{A'} = 0.50$$
 and $d' = 3.0$ cm, find r . $r = 1.06$ cm

2. Given
$$\frac{C}{C'} = 0.5$$
 and $r' = 4$ km, find r . $r = 2$ km.

7. Given
$$\frac{A'}{A} = 25$$
, find $\frac{d'}{d}$. $\frac{d'}{d} = 5$.

3. Given
$$d=2.32$$
 in and $d'=3.47$ in, find $\frac{C}{C'}$. $\frac{C}{C'}=0.67$.

8. Given
$$d = 2.0$$
 mm and $d' = 3.0$ mm, find $\frac{A}{A'}$. Leave your answer in fractional form. $\frac{A}{A'} = \frac{4}{9}$.

4. Given
$$\frac{r}{r'} = 4.97$$
, find $\frac{d}{d'}$. $\frac{d}{d'} = 4.97$.

9. Given
$$\frac{d^2}{d'^2} = \sqrt{7}$$
, find $\frac{r'^2}{r^2}$. Leave your answer in radical form. $\frac{r'^2}{r^2} = \frac{\sqrt{7}}{7}$.

5. Given
$$\frac{d}{d'} = 0.75$$
 and $C' = 7.77$ ft, find C . $C = 5.82$ ft

10. Given
$$\frac{A}{A'} = \frac{4}{5}$$
 and $r^2 = 80$ mi, find d' . $d' = 20$ mi

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