Circles Worksheet 1

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 r'.

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

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

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

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

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

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

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

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

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