## Arc Lengths and Angles (J)

Name: $\qquad$ Date: $\qquad$
Calculate each arc length or angle measurement.


Radius $=3 \mathrm{AU}$
$\angle A B C=$



Radius $=5 \mathrm{mi}$
$\angle \mathrm{DEF}=$


$$
\text { Radius }=9 \mathrm{mi}
$$

$$
\begin{array}{ll} 
& \text { Radius }=98 \text { in } \\
\widehat{\mathrm{GJ}}= & \overparen{\mathrm{RT}}=
\end{array}
$$

## Arc Lengths and Angles (J) Answers

Name: $\qquad$ Date: $\qquad$
Calculate each arc length or angle measurement.


$$
\text { Radius }=3 \mathrm{AU}
$$

$\angle \mathrm{ABC}=\frac{3.72}{3 \times \pi \times 2} \times 360=71^{\circ}$


Radius $=98$ in
$\overparen{\mathrm{GJ}}=\frac{174}{360} \times \pi \times 98 \times 2=297.61 \mathrm{in}$


$$
\text { Radius = } 5 \mathrm{mi}
$$

$$
\angle \mathrm{DEF}=\frac{13.96}{5 \times \pi \times 2} \times 360=160^{\circ}
$$



$$
\begin{gathered}
\text { Radius }=9 \mathrm{mi} \\
\overparen{\mathrm{RT}}=\frac{152}{360} \times \pi \times 9 \times 2=23.88 \mathrm{mi}
\end{gathered}
$$

