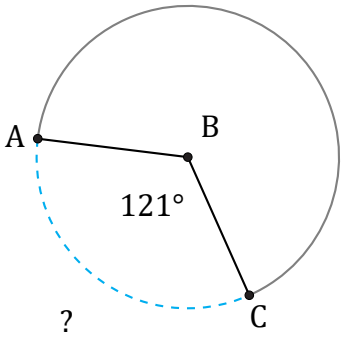
Arc Lengths and Angles (A)

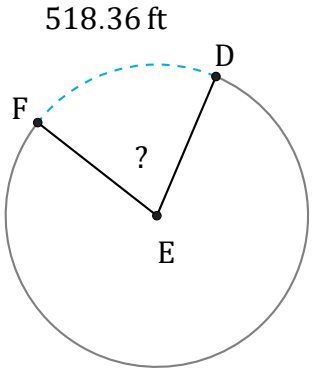
Name: _____ Date: _____

Calculate each arc length or angle measurement.



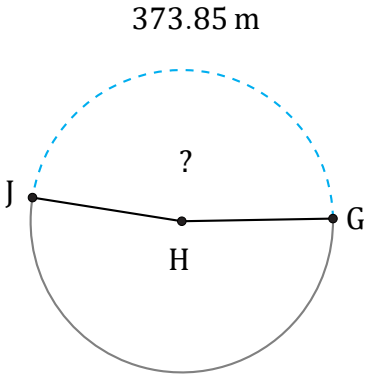
Radius = 33 ft

$\overset{\frown}{AC}$ =



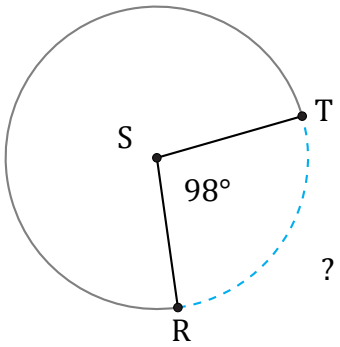
Radius = 396 ft

∠DEF =



Radius = 126 m

∠GHJ =



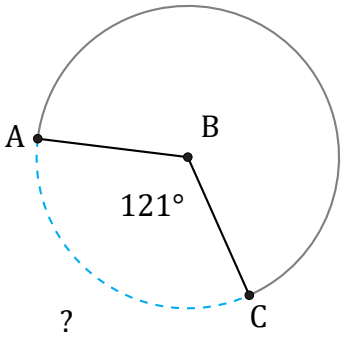
Radius = 65 cm

$\overset{\frown}{RT}$ =

Arc Lengths and Angles (A) Answers

Name: _____ Date: _____

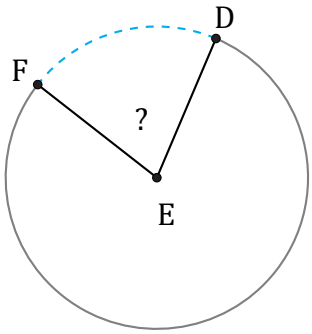
Calculate each arc length or angle measurement.



Radius = 33 ft

$\overset{\frown}{AC} = \frac{121}{360} \times \pi \times 33 \times 2 = 69.69$ ft

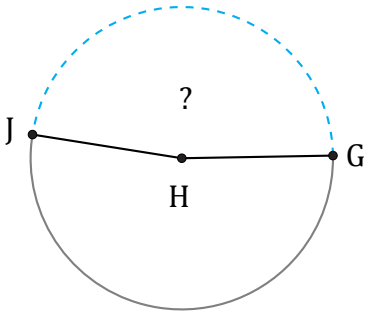
518.36 ft



Radius = 396 ft

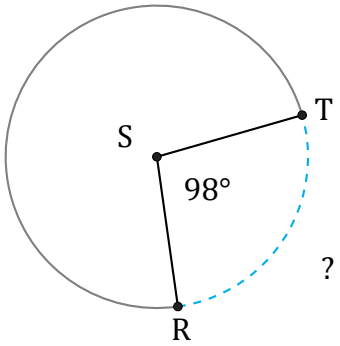
$\angle DEF = \frac{518.36}{396 \times \pi \times 2} \times 360 = 75°$

373.85 m



Radius = 126 m

$\angle GHJ = \frac{373.85}{126 \times \pi \times 2} \times 360 = 170°$



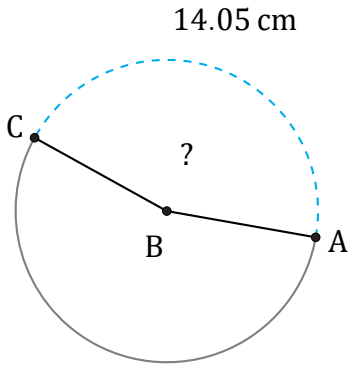
Radius = 65 cm

$\overset{\frown}{RT} = \frac{98}{360} \times \pi \times 65 \times 2 = 111.18$ cm

Arc Lengths and Angles (B)

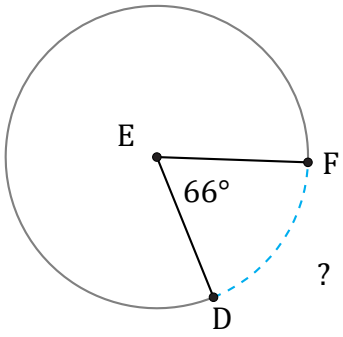
Name: _____ Date: _____

Calculate each arc length or angle measurement.



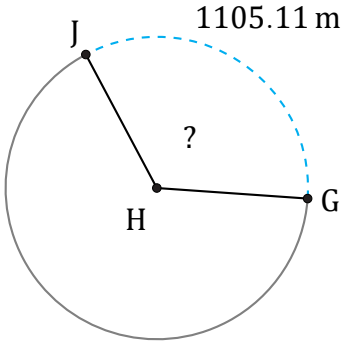
Radius = 5 cm

∠ABC =



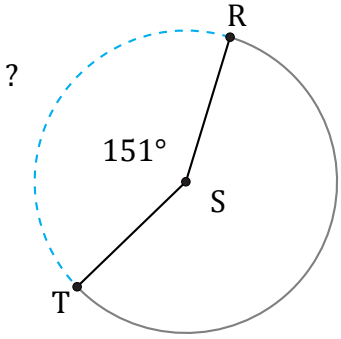
Radius = 10 AU

$\overset{\frown}{DF}$ =



Radius = 519 m

∠GHJ =



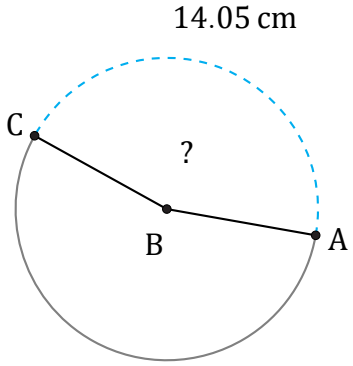
Radius = 560 AU

$\overset{\frown}{RT}$ =

Arc Lengths and Angles (B) Answers

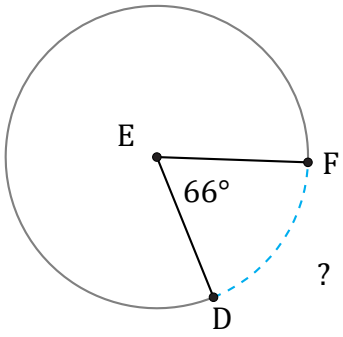
Name: _____ Date: _____

Calculate each arc length or angle measurement.



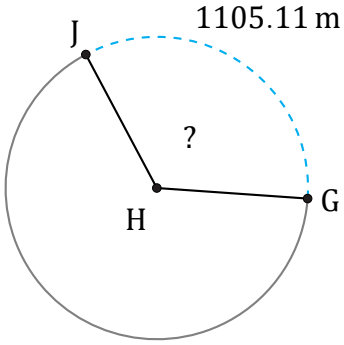
Radius = 5 cm

$\angle ABC = \frac{14.05}{5 \times \pi \times 2} \times 360 = 161°$



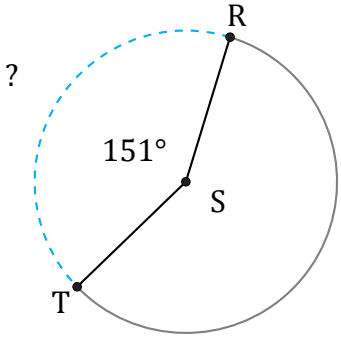
Radius = 10 AU

$\overset{\frown}{DF} = \frac{66}{360} \times \pi \times 10 \times 2 = 11.52 \text{ AU}$



Radius = 519 m

$\angle GHJ = \frac{1105.11}{519 \times \pi \times 2} \times 360 = 122°$



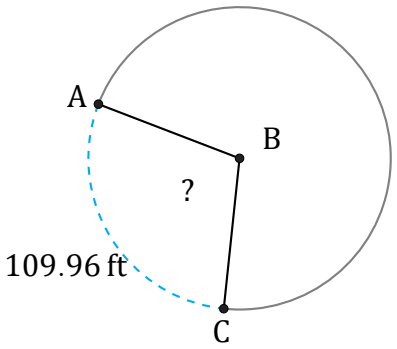
Radius = 560 AU

$\overset{\frown}{RT} = \frac{151}{360} \times \pi \times 560 \times 2 = 1475.85 \text{ AU}$

Arc Lengths and Angles (C)

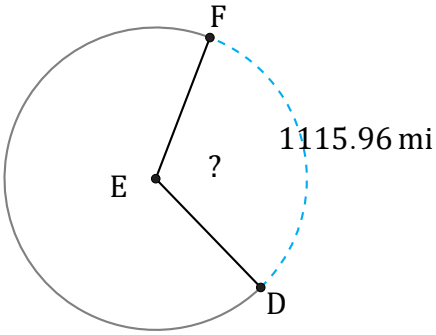
Name: _____ Date: _____

Calculate each arc length or angle measurement.



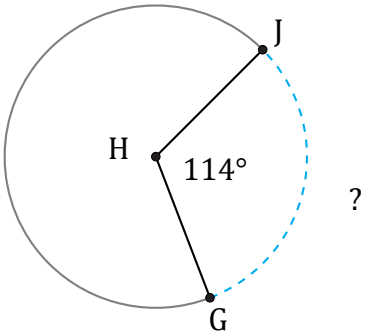
Radius = 60 ft

∠ABC =



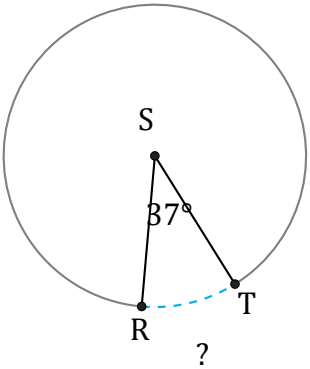
Radius = 556 mi

∠DEF =



Radius = 52 cm

$\overset{\frown}{GJ}$ =



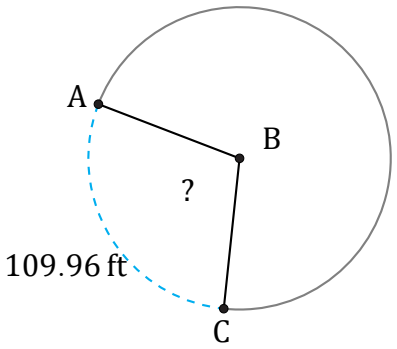
Radius = 1 cm

$\overset{\frown}{RT}$ =

Arc Lengths and Angles (C) Answers

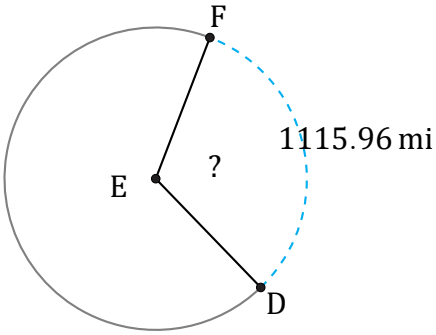
Name: _____ Date: _____

Calculate each arc length or angle measurement.



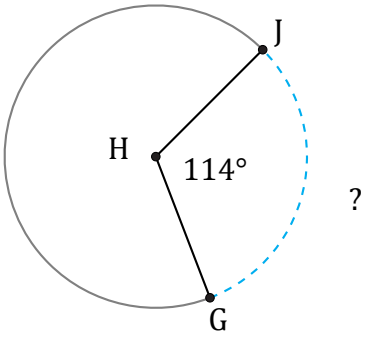
Radius = 60 ft

$\angle ABC = \frac{109.96}{60 \times \pi \times 2} \times 360 = 105°$



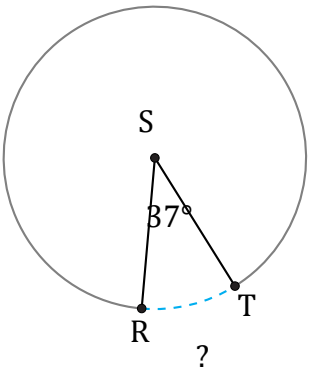
Radius = 556 mi

$\angle DEF = \frac{1115.96}{556 \times \pi \times 2} \times 360 = 115°$



Radius = 52 cm

$\overset{\frown}{GJ} = \frac{114}{360} \times \pi \times 52 \times 2 = 103.46 \text{ cm}$



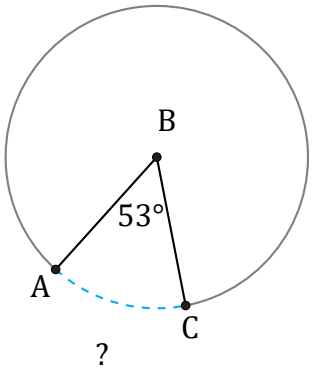
Radius = 1 cm

$\overset{\frown}{RT} = \frac{37}{360} \times \pi \times 1 \times 2 = 0.65 \text{ cm}$

Arc Lengths and Angles (D)

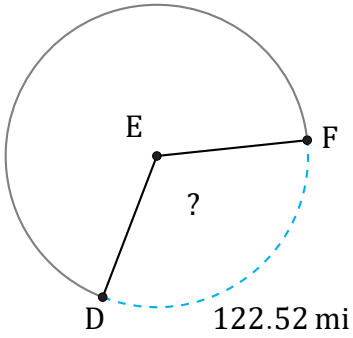
Name: _____ Date: _____

Calculate each arc length or angle measurement.



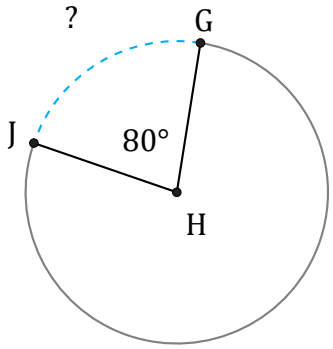
Radius = 89 mm

$\overset{\frown}{AC}$ =



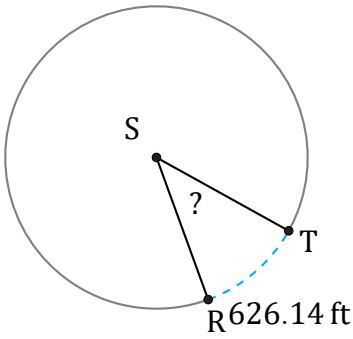
Radius = 60 mi

∠DEF =



Radius = 792 mm

$\overset{\frown}{GJ}$ =



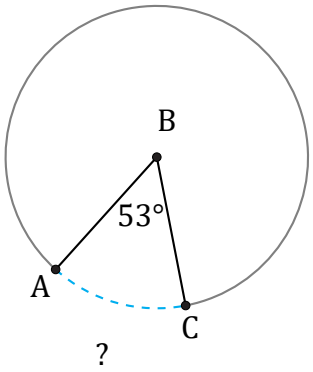
Radius = 875 ft

∠RST =

Arc Lengths and Angles (D) Answers

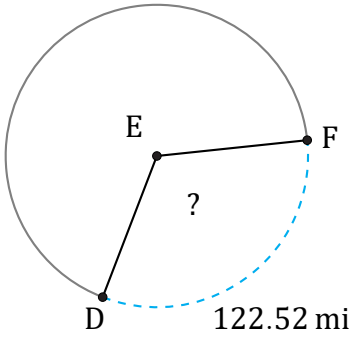
Name: _____ Date: _____

Calculate each arc length or angle measurement.



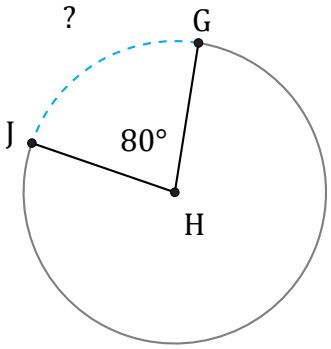
Radius = 89 mm

$\overset{\frown}{AC} = \frac{53}{360} \times \pi \times 89 \times 2 = 82.33$ mm



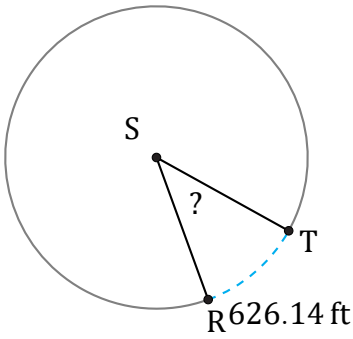
Radius = 60 mi

$\angle DEF = \frac{122.52}{60 \times \pi \times 2} \times 360 = 117°$



Radius = 792 mm

$\overset{\frown}{GJ} = \frac{80}{360} \times \pi \times 792 \times 2 = 1105.84$ mm



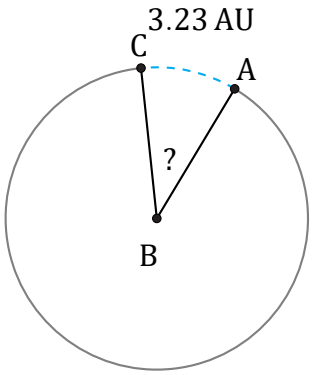
Radius = 875 ft

$\angle RST = \frac{626.14}{875 \times \pi \times 2} \times 360 = 41°$

Arc Lengths and Angles (E)

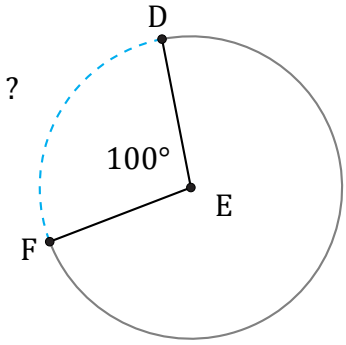
Name: _____ Date: _____

Calculate each arc length or angle measurement.



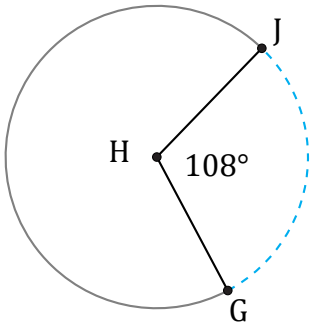
Radius = 5 AU

∠ABC =



Radius = 4 AU

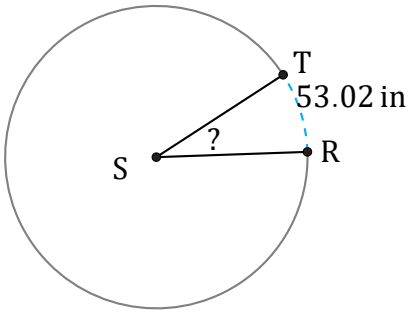
$\overset{\frown}{DF}$ =



?

Radius = 81 m

$\overset{\frown}{GJ}$ =



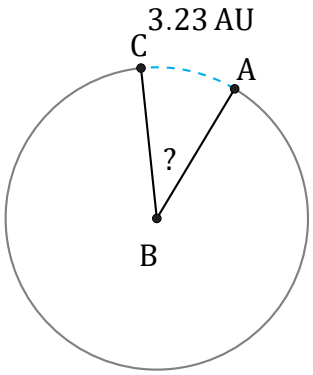
Radius = 98 in

∠RST =

Arc Lengths and Angles (E) Answers

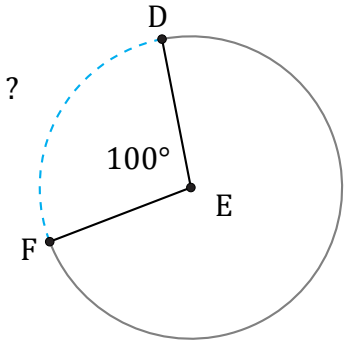
Name: _____ Date: _____

Calculate each arc length or angle measurement.



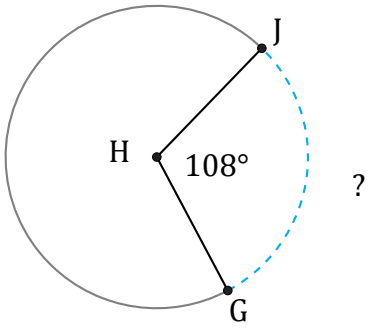
Radius = 5 AU

$\angle ABC = \frac{3.23}{5 \times \pi \times 2} \times 360 = 37°$



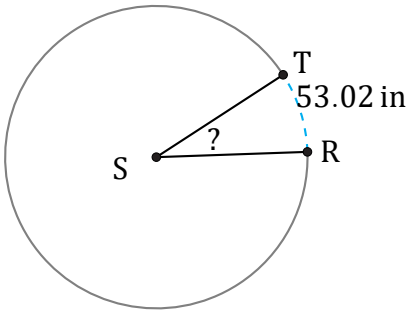
Radius = 4 AU

$\overset{\frown}{DF} = \frac{100}{360} \times \pi \times 4 \times 2 = 6.98 \text{ AU}$



Radius = 81 m

$\overset{\frown}{GJ} = \frac{108}{360} \times \pi \times 81 \times 2 = 152.68 \text{ m}$



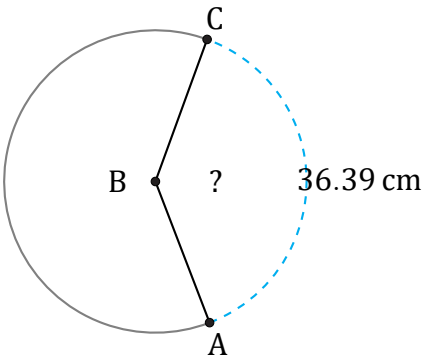
Radius = 98 in

$\angle RST = \frac{53.02}{98 \times \pi \times 2} \times 360 = 31°$

Arc Lengths and Angles (F)

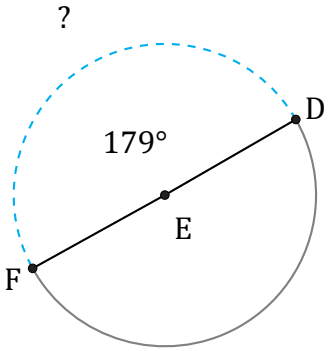
Name: _____ Date: _____

Calculate each arc length or angle measurement.



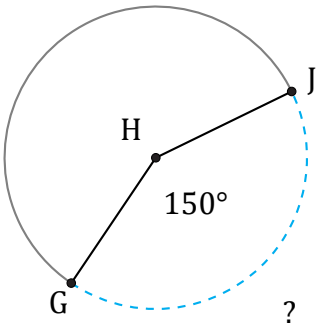
Radius = 15 cm

∠ABC =



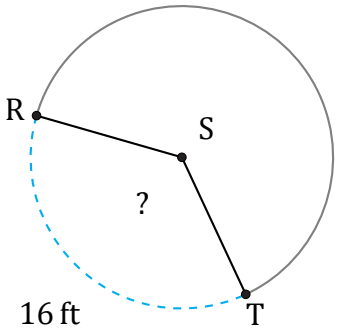
Radius = 138 m

$\overset{\frown}{DF}$ =



Radius = 2 mm

$\overset{\frown}{GJ}$ =



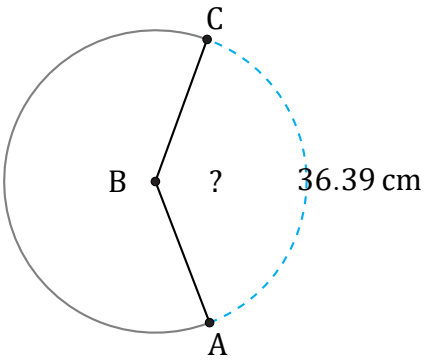
Radius = 7 ft

∠RST =

Arc Lengths and Angles (F) Answers

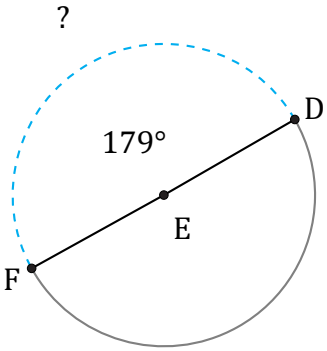
Name: _____ Date: _____

Calculate each arc length or angle measurement.



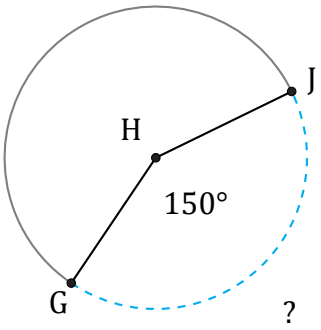
Radius = 15 cm

$\angle ABC = \frac{36.39}{15 \times \pi \times 2} \times 360 = 139°$



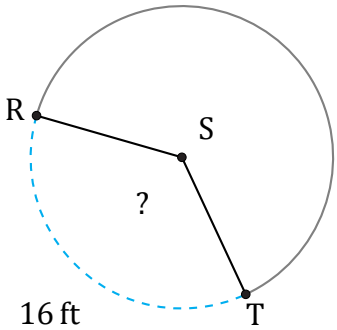
Radius = 138 m

$\overset{\frown}{DF} = \frac{179}{360} \times \pi \times 138 \times 2 = 431.13 \text{ m}$



Radius = 2 mm

$\overset{\frown}{GJ} = \frac{150}{360} \times \pi \times 2 \times 2 = 5.24 \text{ mm}$



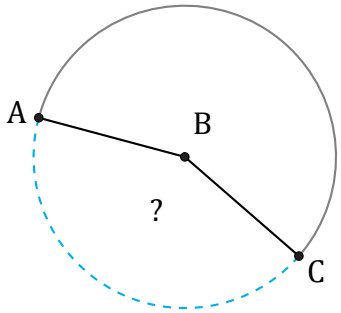
Radius = 7 ft

$\angle RST = \frac{16}{7 \times \pi \times 2} \times 360 = 131°$

Arc Lengths and Angles (G)

Name: _____ Date: _____

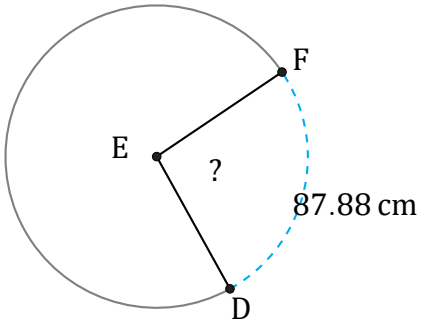
Calculate each arc length or angle measurement.



2574.92 mm

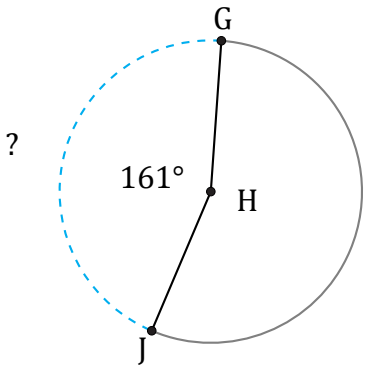
Radius = 958 mm

∠ABC =



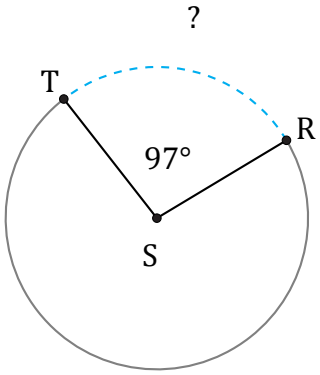
Radius = 53 cm

∠DEF =



Radius = 8 m

$\overset{\frown}{GJ}$ =



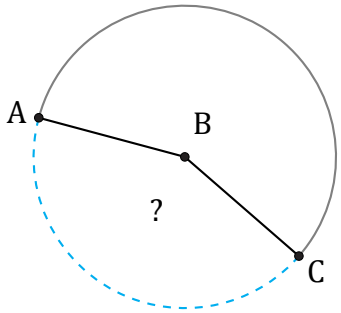
Radius = 705 mm

$\overset{\frown}{RT}$ =

Arc Lengths and Angles (G) Answers

Name: _____ Date: _____

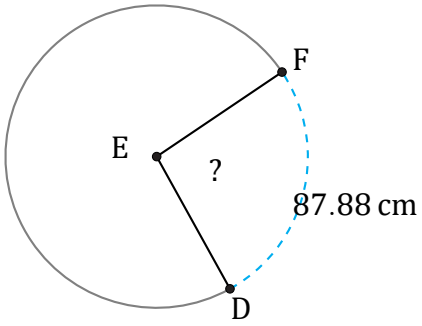
Calculate each arc length or angle measurement.



2574.92 mm

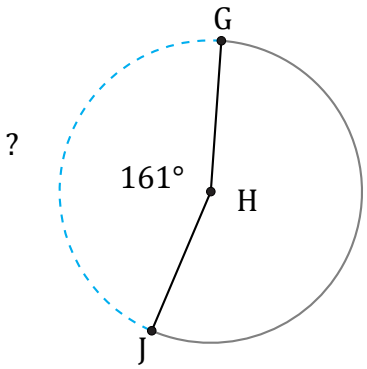
Radius = 958 mm

$\angle ABC = \frac{2574.92}{958 \times \pi \times 2} \times 360 = 154°$



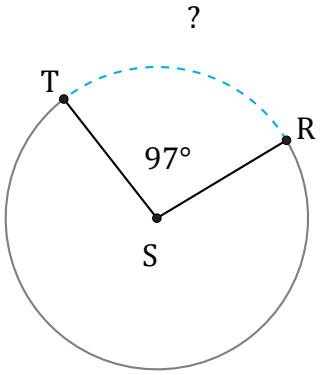
Radius = 53 cm

$\angle DEF = \frac{87.88}{53 \times \pi \times 2} \times 360 = 95°$



Radius = 8 m

$\overset{\frown}{GJ} = \frac{161}{360} \times \pi \times 8 \times 2 = 22.48\text{ m}$



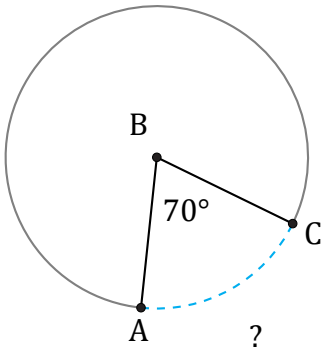
Radius = 705 mm

$\overset{\frown}{RT} = \frac{97}{360} \times \pi \times 705 \times 2 = 1193.54\text{ mm}$

Arc Lengths and Angles (H)

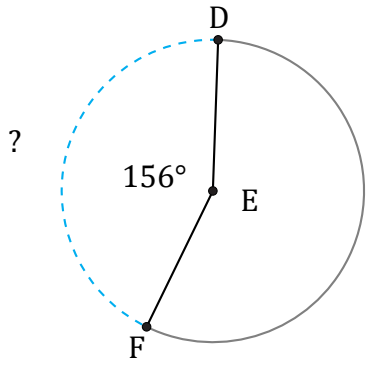
Name: _____ Date: _____

Calculate each arc length or angle measurement.



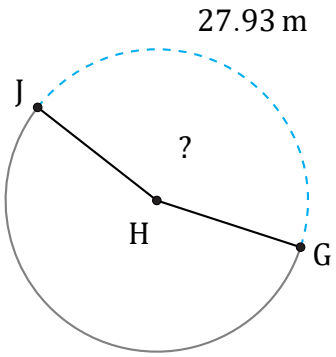
Radius = 680 cm

$\overset{\frown}{AC}$ =



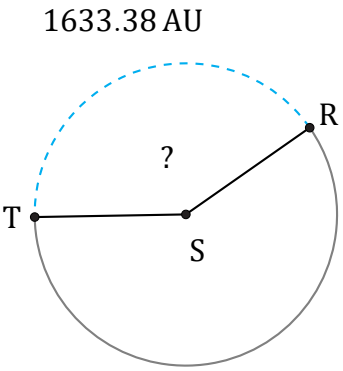
Radius = 9 cm

$\overset{\frown}{DF}$ =



Radius = 10 m

∠GHJ =



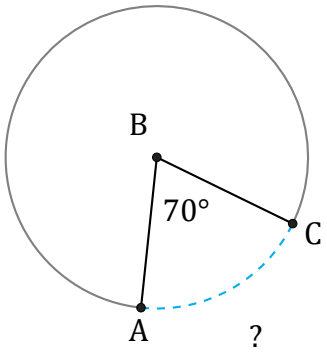
Radius = 641 AU

∠RST =

Arc Lengths and Angles (H) Answers

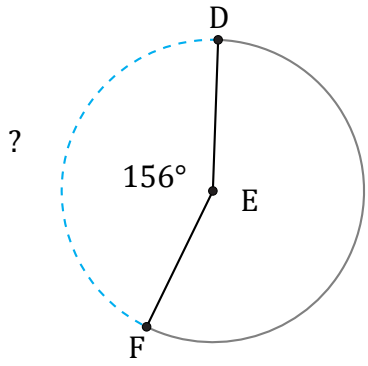
Name: _____ Date: _____

Calculate each arc length or angle measurement.



Radius = 680 cm

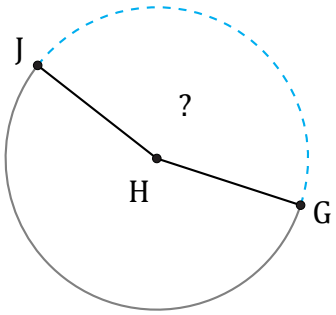
$\overset{\frown}{AC} = \frac{70}{360} \times \pi \times 680 \times 2 = 830.78$ cm



Radius = 9 cm

$\overset{\frown}{DF} = \frac{156}{360} \times \pi \times 9 \times 2 = 24.5$ cm

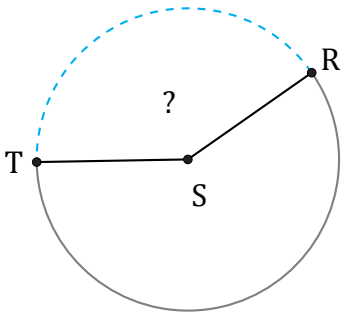
27.93 m



Radius = 10 m

$\angle GHJ = \frac{27.93}{10 \times \pi \times 2} \times 360 = 160°$

1633.38 AU



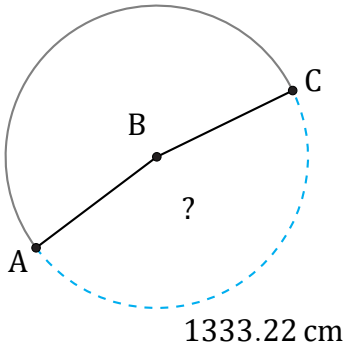
Radius = 641 AU

$\angle RST = \frac{1633.38}{641 \times \pi \times 2} \times 360 = 146°$

Arc Lengths and Angles (I)

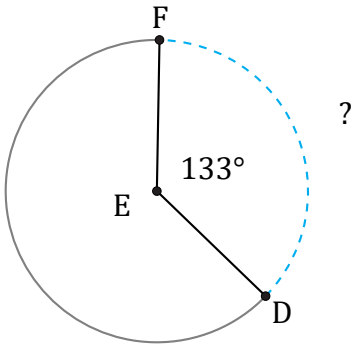
Name: _____ Date: _____

Calculate each arc length or angle measurement.



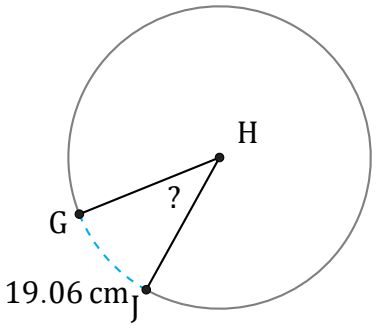
Radius = 452 cm

∠ABC =



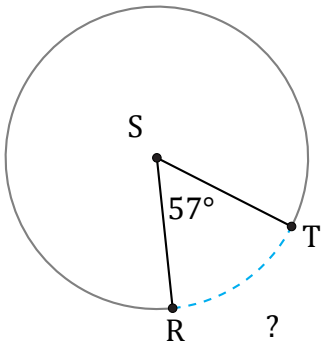
Radius = 9 m

$\overset{\frown}{DF}$ =



Radius = 28 cm

∠GHJ =



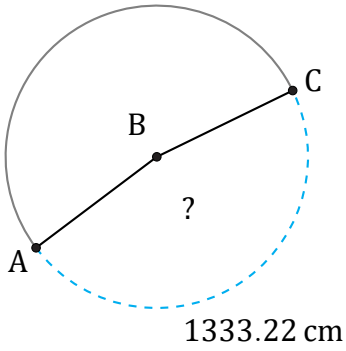
Radius = 107 km

$\overset{\frown}{RT}$ =

Arc Lengths and Angles (I) Answers

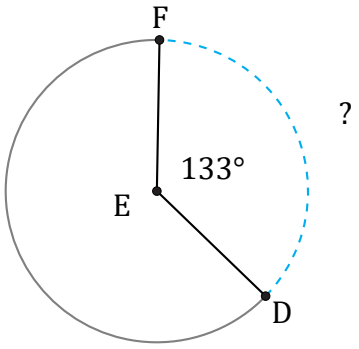
Name: _____ Date: _____

Calculate each arc length or angle measurement.



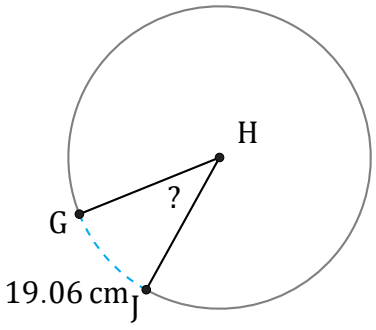
Radius = 452 cm

$\angle ABC = \frac{1333.22}{452 \times \pi \times 2} \times 360 = 169°$



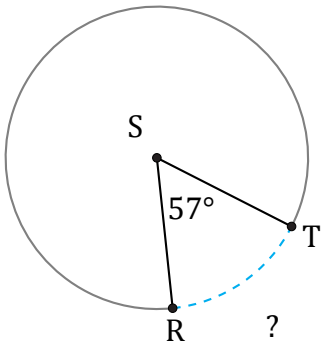
Radius = 9 m

$\overset{\frown}{DF} = \frac{133}{360} \times \pi \times 9 \times 2 = 20.89 \text{ m}$



Radius = 28 cm

$\angle GHJ = \frac{19.06}{28 \times \pi \times 2} \times 360 = 39°$



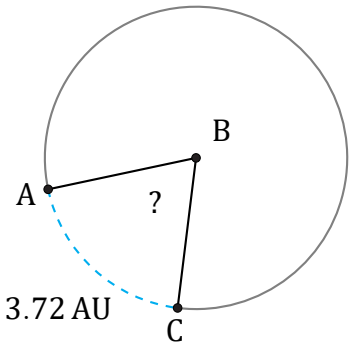
Radius = 107 km

$\overset{\frown}{RT} = \frac{57}{360} \times \pi \times 107 \times 2 = 106.45 \text{ km}$

Arc Lengths and Angles (J)

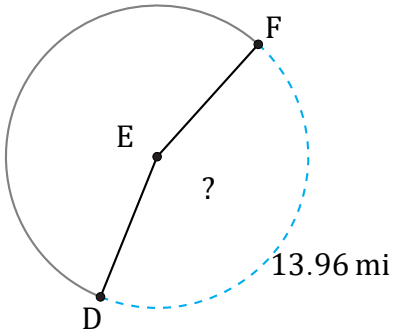
Name: _____ Date: _____

Calculate each arc length or angle measurement.



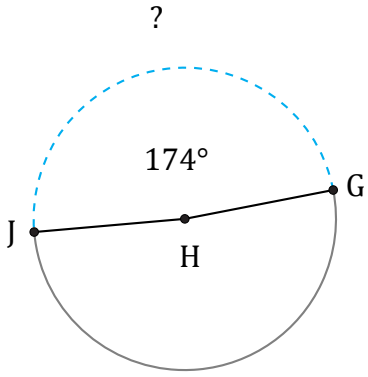
Radius = 3 AU

∠ABC =



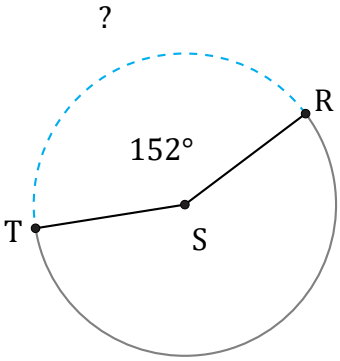
Radius = 5 mi

∠DEF =



Radius = 98 in

$\overset{\frown}{GJ}$ =



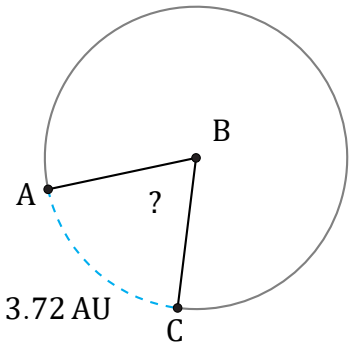
Radius = 9 mi

$\overset{\frown}{RT}$ =

Arc Lengths and Angles (J) Answers

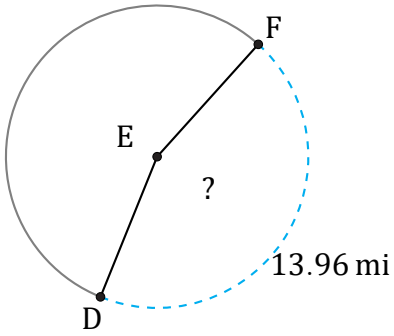
Name: _____ Date: _____

Calculate each arc length or angle measurement.



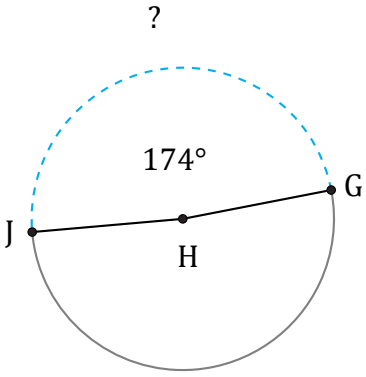
Radius = 3 AU

$\angle ABC = \frac{3.72}{3 \times \pi \times 2} \times 360 = 71°$



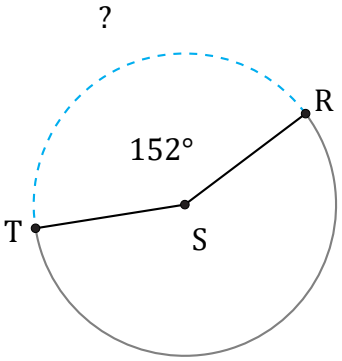
Radius = 5 mi

$\angle DEF = \frac{13.96}{5 \times \pi \times 2} \times 360 = 160°$



Radius = 98 in

$\overset{\frown}{GJ} = \frac{174}{360} \times \pi \times 98 \times 2 = 297.61 \text{ in}$



Radius = 9 mi

$\overset{\frown}{RT} = \frac{152}{360} \times \pi \times 9 \times 2 = 23.88 \text{ mi}$