

MHF4U

a) 60° **b) 90°** **c) 120°** **d) 150°**

a) 15° **b) 10°** **c) 7.5°** **d) 5°**

a) 90° b) 135° c) 180° d) 225°

a) 22.5° b) 15° c) 9° d) 3°

a) 40° **b) 10°** **c) 315°**

d) 210° **e) 300°** **f) 75°**

6) Determine the APPROXIMATE radian measure, the nearest hundredth, for each angle.

a) 23°

b) 51°

c) 82°

d) 128°

e) 240°

f) 330°

7) Determine the EXACT degree measure for each angle.

a) $\frac{\pi}{5}$

b) $\frac{\pi}{9}$

c) $\frac{5\pi}{12}$

d) $\frac{5\pi}{18}$

e) $\frac{3\pi}{4}$

f) $\frac{3\pi}{2}$

8) Determine the APPROXIMATE degree measure, to the nearest tenth, for each angle.

a) 2.34

b) 3.14

c) 5.27

d) 7.53

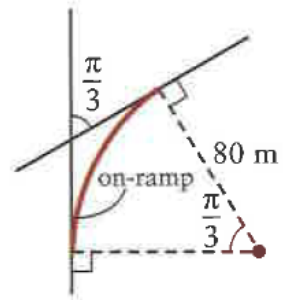
e) 0.68

f) 1.72

9) A circle of radius 25 cm has a central angle of 4.75 radians. Determine the length of the arc that subtends this angle.

10) Two highways meet at an angle measuring $\frac{\pi}{3}$ radians, as shown. An on-ramp in the shape of a circular arc is to be built such that the arc has a radius of 80 m.

a) Determine an EXACT expression for the length of the on-ramp.



b) Determine the length of the on-ramp, to the nearest tenth of a meter.

11) David made a swing for his niece Sarah using ropes 2.4 m long, so that Sarah swings through an arc length of 1.2 meters. Determine the angle through which Sarah swings, in both radians and degrees.