This print-out should have 6 questions. Multiple-choice questions may continue on the next column or page – find all choices before answering.

Acceleration Conversion
001 10.0 points

Convert an acceleration of 1.2 mi/h/s to m/s^2.

Answer in units of m/s^2.

Angle Conversion
002 10.0 points

Convert 35.5° to radians.

Answer in units of rad.

Area of a Lot
003 10.0 points

Find the area of a rectangular building lot that is 100 ft by 60 ft.

Answer in units of m^2.

Block Density
004 10.0 points

A block of material has dimensions 4.6 cm by 7.1 cm by 4.7 cm. Its mass is 629 g.

What is the density?

Answer in units of g/cm^3.

Circular Copper Plate
005 10.0 points

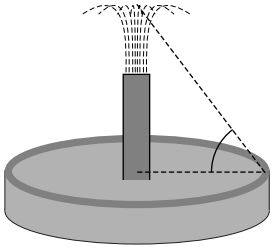
A flat circular plate of copper has a radius of 0.266 m and a mass of 58.4 kg.

What is the thickness of the plate?

Answer in units of m.

Height of a Fountain
006 10.0 points

A high fountain of water is located at the center of a circular pool as in the figure. A student walks around the pool and estimates its circumference to be 156 m. Next, the student stands at the edge of the pool and uses a protractor to gauge the angle of elevation of the top of the fountain to be 40.4°.



How high is the fountain?

Answer in units of m.