### Monday

**LANDSCAPING** Rob is helping his dad install a fence. He is using a sledgehammer to drive the pointed fence posts into the ground. On his first swing, he drives a post five inches into the ground. Since the soil is denser the deeper he drives, on each swing after the first, he can only drive the post 30% as far into the ground as he did on the previous swing. How far has he driven the post into the ground after five swings?

### Tuesday

$$2^{2x} = \frac{1}{8}$$

# Wednesday

Find all the zeros of the polynomial:

$$g(x) = 12x^4 + 4x^3 - 3x^2 - x$$

## Thursday

The figure at the right is made of three concentric semicircles. What is the total area of the shaded regions?

 $\bigcirc$   $4\pi$  units<sup>2</sup>

**B**  $10\pi$  units<sup>2</sup>

 $\bigcirc$  12 $\pi$  units<sup>2</sup>

 $\bigcirc$  20 $\pi$  units<sup>2</sup>



### Friday

**PHYSICS** A vacuum pump removes 20% of the air from a container with each stroke of its piston. What percent of the original air remains after five strokes of the piston? (Lesson 11-3)