2. M40598

The circumference C of a circle with radius r can be calculated using the formula $C = 2\pi r$. Which formula represents r in terms of C?

A. $r = 2\pi C$

B. $r = C - 2\pi$

C. $r = \frac{C\pi}{2}$

D. $r = \frac{C}{2\pi}$

6. A set production designer creates a right circular cylindrical pillar. The designer knows the amount of material used for the surface of the pillar and needs to find the height for a reinforcement rod.

   Use $A = (2\pi r)h + \pi r^2$, where r represents the radius, h represents the height of the pillar, and A represents the surface area of the pillar. What is a formula for h in terms of the other variables that can be used to find the height?

   A. $h = \frac{A-\pi r^2}{2\pi r}$

   B. $h = \frac{A+\pi r^2}{2\pi r}$

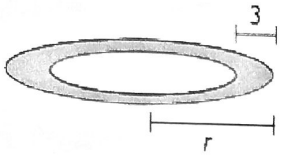
   C. $h = \frac{A}{3\pi r^2}$

   D. $h = \frac{A}{2\pi r} - \frac{1}{2}$

1.

M40236

A circular pool of water is shrinking as it drains. The diagram shows the shrinkage.



A formula for the area, A, of the circular pool is given by the equation $A = \pi(r-3)^2$.

Which is a formula for r?

A. $r = \sqrt{\frac{A}{\pi}} - 3$

B. $r = \frac{\sqrt{A}}{\pi} + 3$

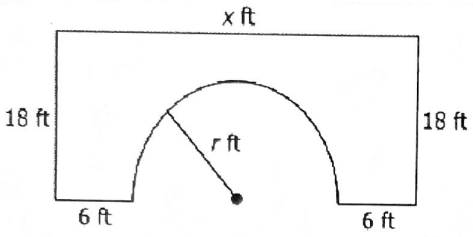
C. $r = \sqrt{\frac{A}{\pi}} + 3$

D. $r = \sqrt{\frac{A}{\pi} - 3}$

19.

M40237P

The diagram represents a bridge over a river with an opening for boats to pass under the bridge.



The area, A, of the side view is given by $A = 18x - 0.5\pi r^2$. Which equation, in terms of A and x, represents the radius, r, of the bridge opening?

A. $r = \sqrt{\frac{18x - A}{2\pi}}$

B. $r = \sqrt{\frac{A - 18x}{0.5\pi}}$

C. $r = \sqrt{\frac{18x}{0.5\pi} - A}$

D. $r = \sqrt{\frac{2(18x - A)}{\pi}}$