

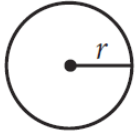


**Titan Learning Center
Mathematics SAT Prep
Week 4 Set B**



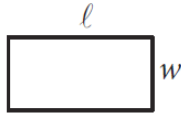
CALCULATOR ALLOWED – Open Answer

REFERENCE (This reference sheet is given on the SAT!)

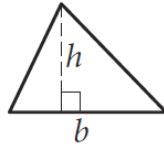


$$A = \pi r^2$$

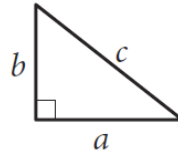
$$C = 2\pi r$$



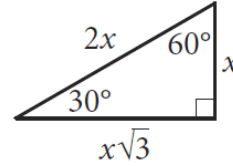
$$A = \ell w$$



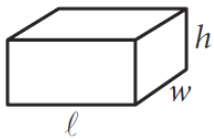
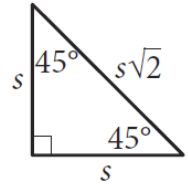
$$A = \frac{1}{2}bh$$



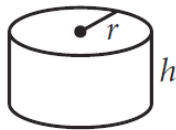
$$c^2 = a^2 + b^2$$



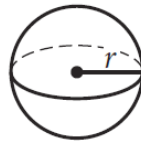
Special Right Triangles



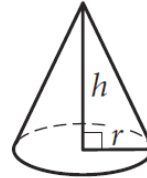
$$V = \ell wh$$



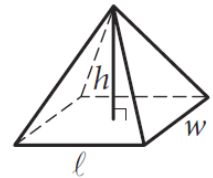
$$V = \pi r^2 h$$



$$V = \frac{4}{3}\pi r^3$$



$$V = \frac{1}{3}\pi r^2 h$$



$$V = \frac{1}{3}\ell wh$$

The number of degrees of arc in a circle is 360.

The number of radians of arc in a circle is 2π .

The sum of the measures in degrees of the angles of a triangle is 180.

16

$$x^2 + x - 12 = 0$$

If a is a solution of the equation above and $a > 0$, what is the value of a ?

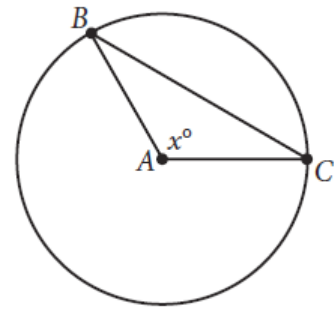
17

The sum of $-2x^2 + x + 31$ and $3x^2 + 7x - 8$ can be written in the form $ax^2 + bx + c$, where a , b , and c are constants. What is the value of $a + b + c$?

$$\begin{aligned} -x + y &= -3.5 \\ x + 3y &= 9.5 \end{aligned}$$

If (x, y) satisfies the system of equations above, what is the value of y ?

A start-up company opened with 8 employees. The company's growth plan assumes that 2 new employees will be hired each quarter (every 3 months) for the first 5 years. If an equation is written in the form $y = ax + b$ to represent the number of employees, y , employed by the company x quarters after the company opened, what is the value of b ?



Note: Figure not drawn to scale.

In the circle above, point A is the center and the length of arc \widehat{BC} is $\frac{2}{5}$ of the circumference of the circle. What is the value of x ?

TLC Stamp

