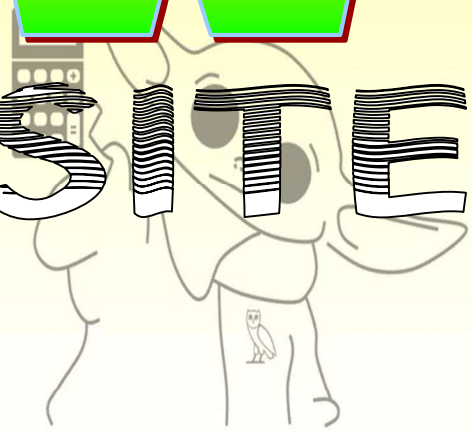
ST. JEAN DE BREBEUF MATHEMATICS

REVIEW

PREREQUISITE SKILLS



CABILAN MATH ONLINE.COM

REVIEW PREREQUISITE SKILLS

SOLVING EQUATIONS / ISOLATING A VARIABLE

Solve for *x* for each equation:

(1) $x + 3 = 10$

$x = 10 - 3$

$\boxed{x = 7}$

(2) $-5 + x = 20$

$x = 20 + 5$

$\boxed{x = 25}$

(3) $4x - 15 = 9$

$4x = 9 + 15$

$\frac{4x}{4} = \frac{24}{4}$

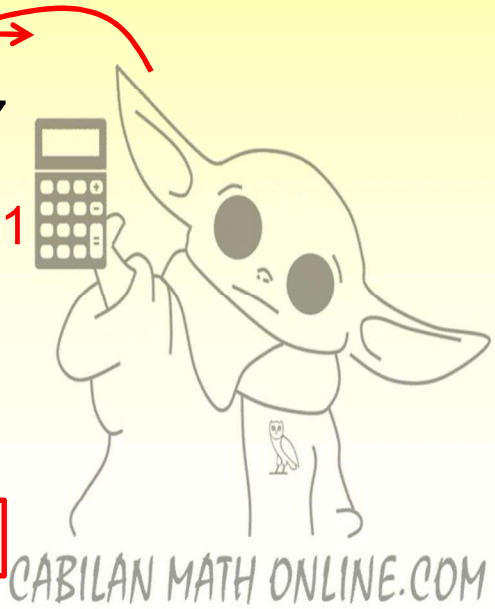
$\boxed{x = 6}$

(4) $-1x + 1 = 17$

$-1x = 17 - 1$

$\frac{-1x}{-1} = \frac{16}{-1}$

$\boxed{x = -16}$



REVIEW PREREQUISITE SKILLS

SOLVING EQUATIONS / ISOLATING A VARIABLE

Solve for *x* for each equation:

(5) $\dfrac{2\pi x}{2\pi} = \dfrac{364.24}{2\pi}$ * **Divide** both sides by **2π**

$$x = 58$$

REVIEW PREREQUISITE SKILLS

SOLVING EQUATIONS / ISOLATING A VARIABLE

Solve for *x* for each equation:

* (6) $\frac{x}{2} = 19$

$2\left(\frac{x}{2}\right) = 2(19)$

$x = 38$

* (7) $\frac{x}{-7} = 4$

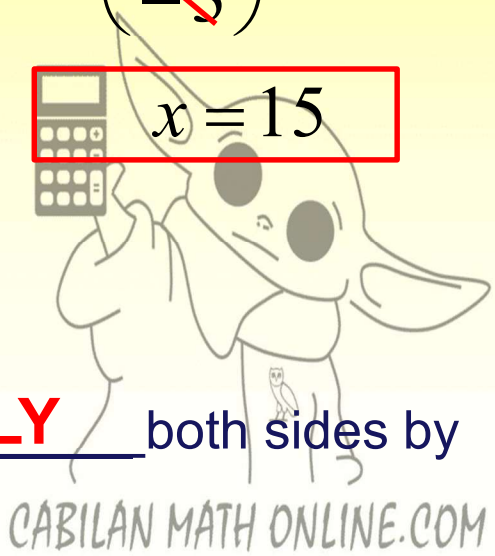
$-7\left(\frac{x}{-7}\right) = -7(4)$

$x = -28$

*(8) $\frac{x}{-3} = -5$

$-3\left(\frac{x}{-3}\right) = -3(-5)$

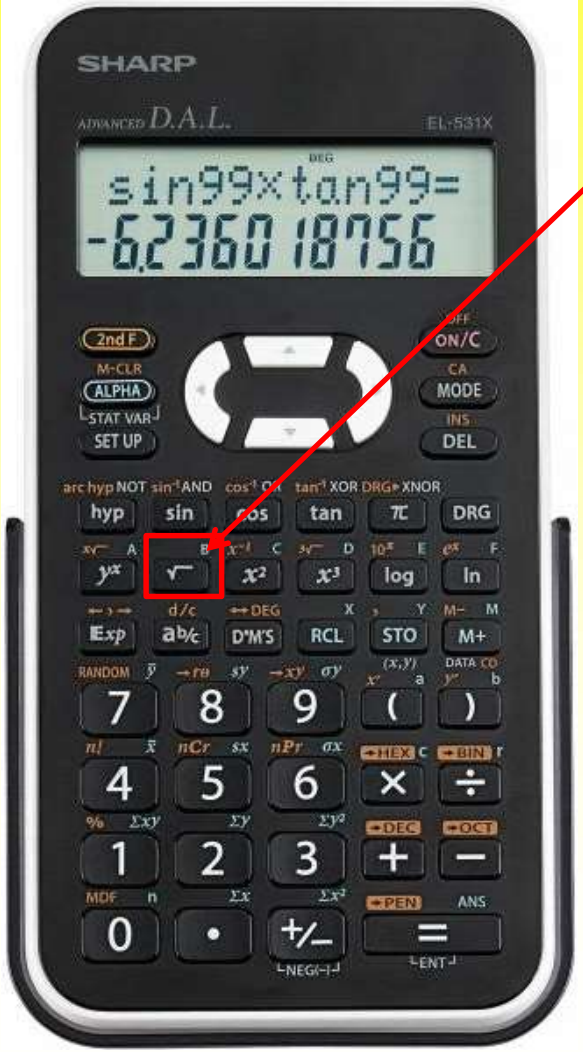
$x = 15$



*** To get rid of a fraction, you must **MULTIPLY** both sides by the denominator ***

REVIEW PREREQUISITE SKILLS

(RE)INTRODUCING THE SQUARE ROOT KEY



SQUARE ROOT KEY

→Takes the **square root** of a number

EXAMPLE

Evaluate $\sqrt{16}$

Press $\sqrt{\ }$ → 16 → "="

REVIEW PREREQUISITE SKILLS

SOLVING EQUATIONS / ISOLATING A VARIABLE

Solve for *x* for each equation:

(9) $x^2 = 25$

$\sqrt{x^2} = \sqrt{25}$

$x = 5$

* Take the **square root** of both sides

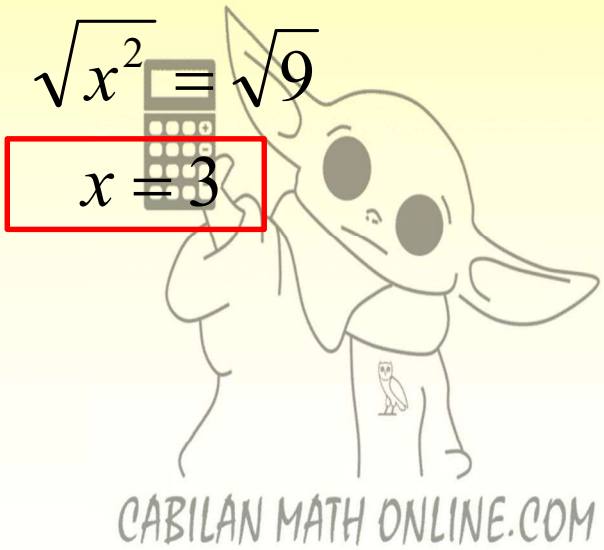
(10) $x^2 - 1 = 8$

$x^2 = 8 + 1$

$x^2 = 9$

$\sqrt{x^2} = \sqrt{9}$

$x = 3$



* (11) $\frac{3x^2}{3} = \frac{48}{3}$

$x^2 = 16$

$\sqrt{x^2} = \sqrt{16}$

$x = 4$

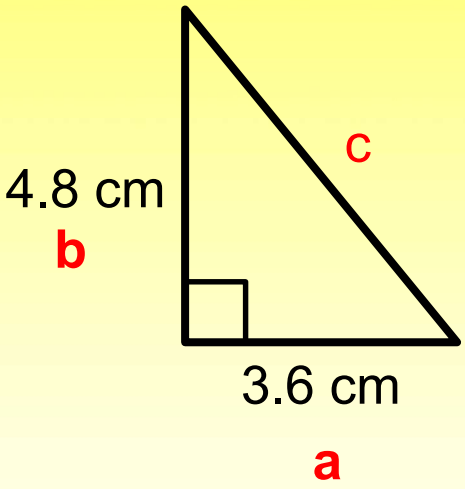
REVIEW PREREQUISITE SKILLS

PYTHAGOREAN THEOREM

"c" is always the *hypotenuse* (located across the *right* angle)

Using the *Pythagorean* Theorem, **$c^2 = a^2 + b^2$**, solve for the length of the unknown side

(1)



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

$$c^2 = (3.6)^2 + (4.8)^2$$

$$c^2 = 12.96 + 23.04$$

$$c^2 = 36$$

$$\sqrt{c^2} = \sqrt{36}$$

$$\boxed{c = 6}$$

1. Write down the formula
2. Label the **hypotenuse**
3. Label the remaining sides, substitute and solve

REVIEW PREREQUISITE SKILLS

PYTHAGOREAN THEOREM

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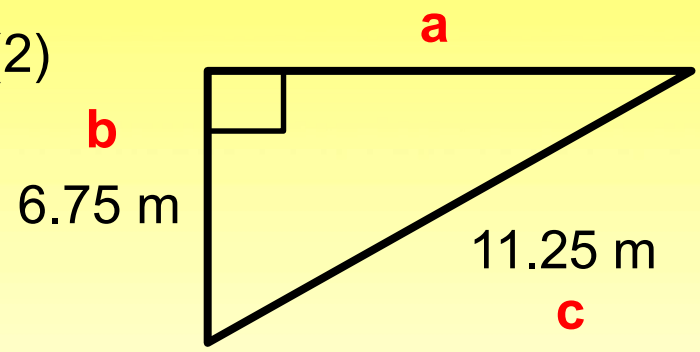
(2)



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

$$(11.25)^2 = a^2 + (6.75)^2$$

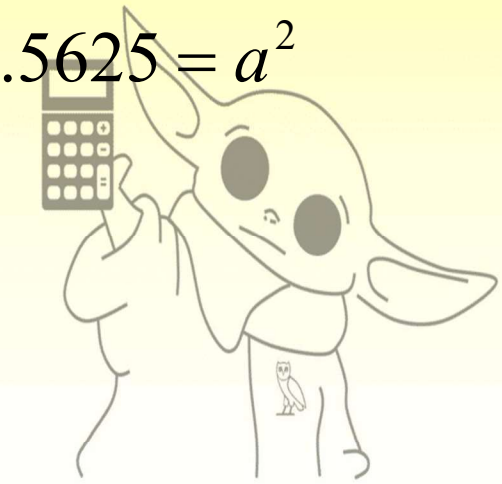
$$126.5625 = a^2 + 45.5625$$

$$126.5625 - 45.5625 = a^2$$

$$81 = a^2$$

$$\sqrt{81} = \sqrt{a^2}$$

$$9 = a$$



1. Write down the formula
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3. Label the remaining sides, substitute and solve

REVIEW PREREQUISITE SKILLS

SEATWORK /HOMEWORK

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