(3.1) Evaluating Formulas

* Area of a Rectangle $A = lw$

Find area given length of 5 feet and width of 6 feet

$A = (5ft)(6ft)$

$A = 30\ ft^2$

Cylinder

$V = \pi r^2 h$

Find Volume given $r = 4$ & $h = 10$

$V = \pi (4)^2 (10)$

$V = \pi (16)(10)$

$V = 160\pi$

* Use $\pi = 3.14$

$V = 160(3.14) = 502.4$

$V = 502.65$

π - button

$$V = (3.14)(4)^2(10) = 502.4$$

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

$r = 8$

$h = 5$

Use $\pi \approx 3.14$

$$V = (1/3)(3.14)(8)^2(5)$$

$$\approx 334.93333\ldots$$

$$\approx \boxed{334.9}$$

$V = lwh$

$100 = (4)w(10)$

$\frac{100}{40} = \frac{\cancel{40}w}{\cancel{40}}$

$2.5 = w$

$V = 100$
$l = 4$
$h = 10$

Solve for w:

$\frac{10\cancel{0}}{4\cancel{0}} = \frac{5}{2}$

$a = 3b + 4c$

$20 = 3(4) + 4c$

$20 = \cancel{12} + 4c$

$-12 \quad \cancel{-12} \quad =$

$\frac{8}{4} = \frac{\cancel{4}c}{\cancel{4}}$

$2 = c$

or

$c = 2$

$b = 4 \qquad a = 20$

$r = \frac{t}{5} - 10 \qquad r = 1$

$1 = \frac{t}{5} - \cancel{10}$

$+10 \qquad \cancel{+10}$

$5 \cdot 11 = \frac{t}{\cancel{5}} \cdot \cancel{5}$

$\boxed{55 = t}$

or

$t = 55$

$$\frac{b}{8} = 6z - 4$$

$b = 256$

$$\frac{256}{8} = 6z - 4$$

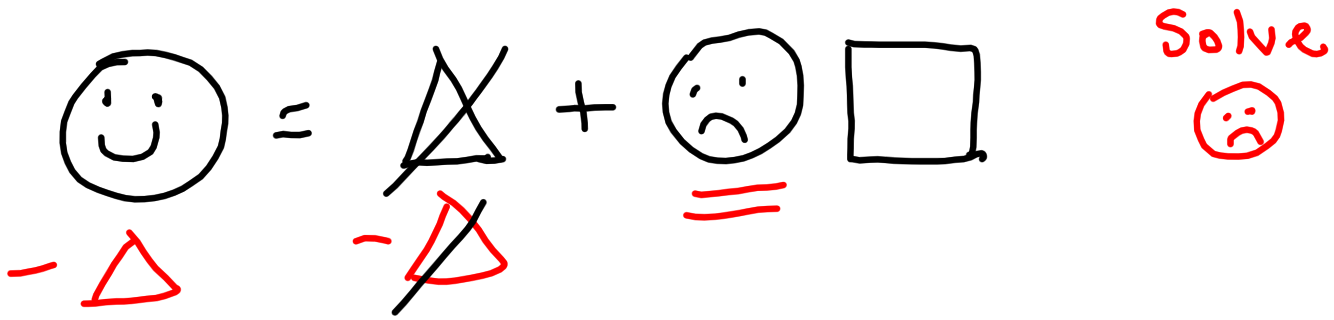
$$32 = 6z - 4$$

$$+4 \qquad +4$$

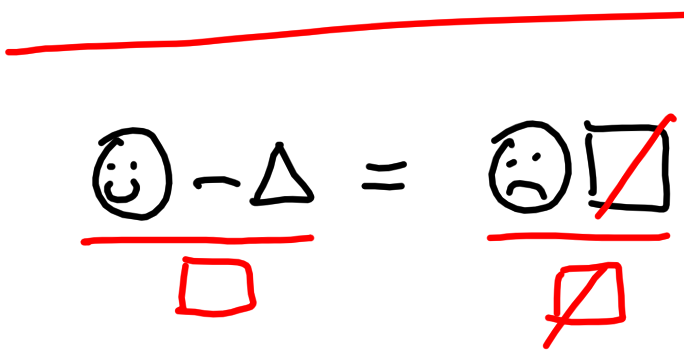
$$\frac{36}{6} = \frac{\cancel{6}z}{\cancel{6}}$$

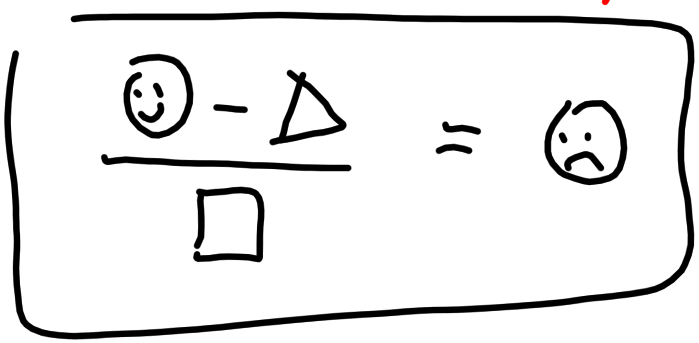
$$6 = z$$

$$\boxed{z = 6}$$



Solve





Answer

Ex: $\frac{b+5}{a} = c$

OR

$\frac{b}{a} + \frac{5}{a} = c$

Ex:

$$2a + \cancel{3b} = c$$

Solve for a

$$-\cancel{3b} \quad -3b$$

$$\frac{\cancel{2}a}{\cancel{2}} = \frac{c-3b}{2}$$

$$\boxed{a = \frac{c-3b}{2}}$$

or

$$a = \frac{c}{2} - \frac{3b}{2}$$

Solve for a:

$$z = b + \frac{m}{a}$$

$$-b \qquad -b$$

$$a(z-b) = \frac{m}{\cancel{a}} \cdot \cancel{a}$$

$$\frac{a\cancel{(z-b)}}{\cancel{(z-b)}} = \frac{m}{(z-b)}$$

$$\boxed{a = \frac{m}{z-b}}$$