


**MasterMath**

**Algebra**

USING FORMULAS TO SOLVE PROBLEMS




---

---

---

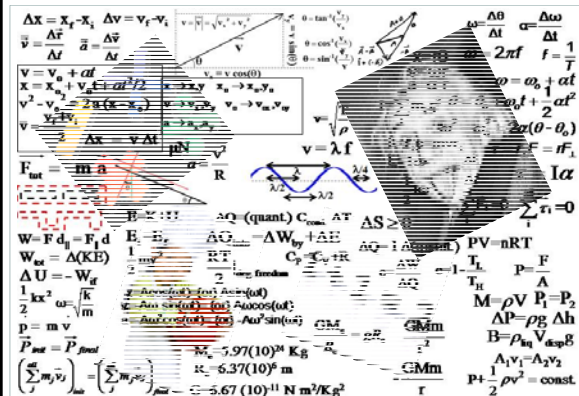
---

---

---

---

---



Using Formulas To Solve

---

---

---


---

---

---

---

---



Combine:

- 2 cups of flour
- 1/2 cup of sugar
- 8 oz. of butter
- 8 oz. chocolate chips

$$C = 2cF + \frac{1}{2}cS + 8oz B + 8oz CC$$

Using Formulas To Solve

---

---

---

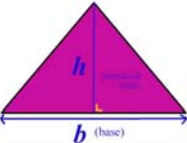
---

---

---

---

---

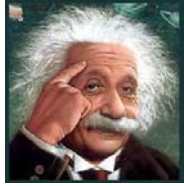


$h$   
 $b$  (base)

Area =  $\frac{bh}{2}$

$A = \frac{b \times h}{2}$      $b = 4$      $h = 2$

$A = \frac{4 \times 2}{2} = 4$



Using Formulas To Solve

---

---

---

---


---

---

---

---

**You try it!**



height = 3"

base = 6"

$A = b \times h$

Using Formulas To Solve

---

---

---

---


---

---

---

---

**You try it!**



height = 3"

base = 6"

$A = b \times h$

$b = 6"$      $h = 3"$

$A = b \times h = 6" \times 3" = 18 \text{ sq. in.}$

Using Formulas To Solve

---

---

---

---

---

---

---

---

**You try it!**

A baseball player's batting average is the number of hits the player gets divided by the number of times she was at bat. Josie was at bat 12 times and got 3 hits.

- Write a formula for batting average. Call batting average "BA"; call hits "H"; and call at bats "B".
- Figure out Josie's batting average.

Using Formulas To Solve

---

---

---

---

---

---

---

---

**You try it!**

A baseball player's batting average is the number of hits the player gets divided by the number of times she was at bat. Josie was at bat 12 times and got 3 hits.

- Write a formula for batting average. Call batting average "BA"; call hits "H"; and call at bats "B".
- Figure out Josie's batting average.

$$BA = \frac{H}{B} \quad H = 3 \quad B = 12$$

$$BA = \frac{3}{12} = \frac{1}{4} = .250$$

Using Formulas To Solve

---

---

---

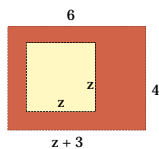
---

---

---

---

---

**You try it!**

The brown shape is a rectangle, and the yellow shape is a square.  
The formula for the area of a rectangle is  $b \times h$ . The formula for the area of a square is  $b \times h$ , or  $b \times b$ , since the base = height.  
Find a formula for the area of just the brown portion of the total shape (*the area of the brown rectangle minus the area of the yellow square*).

Using Formulas To Solve

---

---

---

---

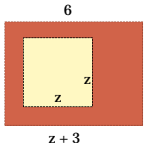
---

---

---

---

**You try it!**



The brown shape is a rectangle, and the yellow shape is a square.  
The formula for the area of a rectangle is  $b \times h$ . The formula for the area of a square is  $b \times h$ , or  $b \times b$ , since the base = height.  
Find a formula for the area of just the brown portion of the total shape (*the area of the brown rectangle minus the area of the yellow square*).

Lets call area of brown portion "AB"

$$AB = [(z+3)4] - (z \times z)$$

Using Formulas To Solve

---

---

---

---

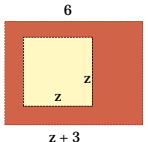
---

---

---

---

**You try it!**



The brown shape is a rectangle, and the yellow shape is a square.  
The formula for the area of a rectangle is  $b \times h$ . The formula for the area of a square is  $b \times h$ , or  $b \times b$ , since the base = height.  
Find a formula for the area of just the brown portion of the total shape (*the area of the brown rectangle minus the area of the yellow square*).

$$AB = (6 \times 4) - z \times z$$

Using Formulas To Solve

---

---

---

---

---

---

---

---

**You try it!**

The formula for determining how many miles per gallon you get will driving a car is:

$$\text{MPG} = \frac{\text{Miles driven}}{\text{Gallons of fuel burned}}$$

Your family goes on vacation, and travels to a park in West Virginia. The park is 375 miles from your home. Your car is full of gas when you leave home, you buy no gas in route, but put 25 gallons of gas in the car to fill it up when you get to the park. What MPG did you average on this trip?

Using Formulas To Solve

---

---

---

---

---

---

---

---

The formula for determining how many miles per gallon you get will driving a car is:

$$\text{MPG} = \frac{\text{Miles driven}}{\text{Gallons of fuel burned}}$$

Your family goes on vacation, and travels to a park in West Virginia. The park is 375 miles from your home. Your car is full of gas when you leave home, you buy no gas in route, but put 25 gallons of gas in the car to fill it up when you get to the park. What MPG did you average on this trip?

$$\text{MPG} = \frac{\text{miles}}{\text{gallons}} = \frac{375}{25} = 15 \text{ MPG}$$

Using Formulas To Solve

---

---

---

---

---

---

---

---

### ***You try it!***

Now, try it on your own. Go to [www.MasterMath.info](http://www.MasterMath.info); download *Using Formulas To Solve Problems* from the Worksheets Page, and test your skill.

Using Formulas To Solve

---

---

---

---

---

---

---

---