

Where Can You See the World's Biggest Rock Group?

Evaluate each formula below for the given values of the variables. Find each answer in the box below and cross out the letters above it. When you finish, the answer to the title question will remain.

GE	MT	TA	OP	RU	ST	IN	SH	MO	FI	VE	RE
260	4.5	288	376.8	112	600	2.4	341.5	275	252	100	628

1. The following formula shows the volume V of a square based prism, where w is the width of the square base and h is the height.

$$V = h(w^2)$$

Find the volume the square based prism with a height of 8 cm and a width of 6 cm.

2. The following formula shows the area A of a trapezoid, where h is the height and a and b are the lengths of the bases.

$$A = \frac{h(a+b)}{2}$$

Find the area of a trapezoid with a height of 12 cm and base lengths of 24 cm and 18 cm.

3. The following formula shows the value V of an asset, where n is the number of years and C is the original cost.

$$V = C\left(1 - \frac{n}{20}\right)$$

Determine the value of an asset that originally cost \$800, 5 years later.

4. The following formula shows the height h in metres of an object, where t is the time in seconds and r is the speed at which it was thrown, in m/sec.

$$H = rt - 4.9t^2$$

How high is an object, after 10 seconds, that was thrown at a speed of 75 m/sec?

5. The following formula shows the weight w , in grams, of an ice cube, where e is the edge length.

$$W = 0.8e^3$$

How much does an ice cube weigh, if it has a side length of 5 cm?

6. The following formula shows the total resistance R of a circuit, where r , s , and t are three loads on the circuit.

$$R = \frac{rst}{rs + st + rt}$$

Determine the total resistance for a circuit that has loads of 4 ohms, 10 ohms, and 15 ohms.

7. The following formula shows the volume V of a cone, where r is the radius of the cone and h is the height.

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

Determine the volume if the cone has a height of 10 cm and a radius of 6 cm ($\pi = 3.14$).