What Is It Like to Live Under a Carpet?

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

(1) $d = rt$ where d is the distance traveled by an object moving at speed r in time t. Find d if

$r = 52$ m/sec, $t = 8$ sec. _____ m

(2) $V = \ell wh$ where V is the volume of a rectangular solid with length ℓ, width w, and height h. Find V if

$\ell = 12$ cm, $w = 5$ cm, $h = 3.5$ cm. _____ cm^3

(3) $P = 2\ell + 2w$ where P is the perimeter of a rectangle with length ℓ and width w. Find P if

$\ell = 16$ km, $w = 7.5$ km. _____ km

(4) $d = \frac{1}{2}n(n-3)$ where d is the number of diagonals of a polygon with n sides. Find d if

$n = 20$. _____ diagonals

(5) $V = P(1 + rt)$ where V is the value of an investment of P dollars, invested at simple interest rate r for time t. Find V if

$P = \$500$, $r = .08$ per year, $t = 3$ years. $ _____

(6) $s = 4.9t^2$ where s is the distance in meters a free-falling object travels in t seconds. Find s if

$t = 4$ sec. _____ m

(7) $P = I^2R$ where P is the power in an electrical circuit with current I and resistance R. Find P if

$I = 12$ amperes, $R = 2$ ohms _____ watts

(8) $A = 2w^2 + 4hw$ where A is the surface area of a square prism with a square base of side w and with height h. Find A if

$w = 7$ cm, $h = 10$ cm _____ cm^2

LO	VE	ST	AR	RY	RU	DE	LE	GG	ET	ON	ED	UP
288	276	620	210	366	82.6	378	170	52	78.4	416	194	47