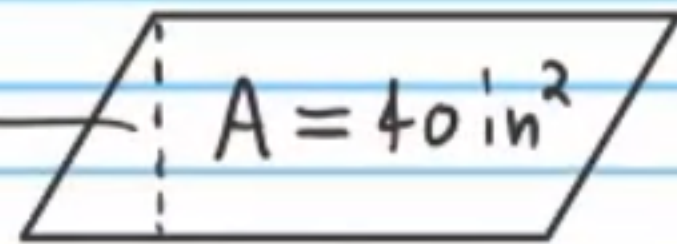


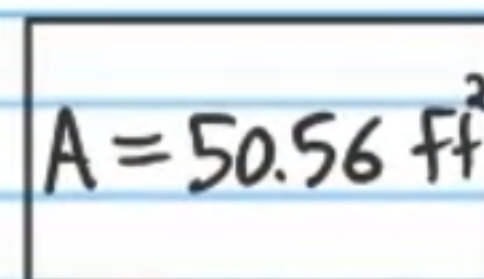
Applications of Algebra (Part II): Solving Equations (Homework)

① If the area of a rectangle is 63 cm^2 and the length is 7 cm , what is the width?

9 cm

② $h = ?$  $A = 40 \text{ in}^2$
 $b = 4 \text{ in}$

10 in

③  $A = 50.56 \text{ ft}^2$ $L = 6.4 \text{ ft}$
 $W = ?$

7.9 ft

④ Use the rate-distance-time formula ($r = d/t$) and the given info to find the missing value.
 $r = 45$, $t = 10$, $d = ?$

$d = 450$

⑤ How far would an object move if it were traveling at $31 \text{ miles per hour}$ for 1.4 hours ?

43.4 mi

⑥ 39% of a number is 0.0312 . What is the number?

0.08

⑦ 28 is 63% of what number?

44.4

⑧ Eleven is what percent of five?

220%

⑨ 6.44 ounces of a 7 ounce watermelon are water. What percent of this watermelon is water?

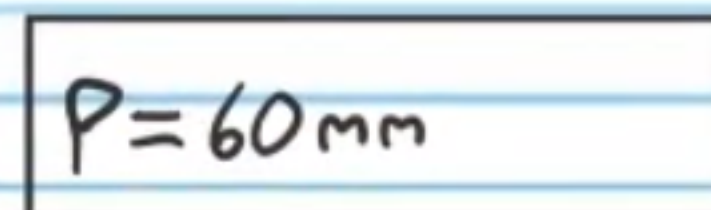
$92\% \text{ water}$

⑩ Andrew used 0.5 percent of his land to grow strawberries. If he used 45.115 acres of land to grow strawberries, how much land does he own in total?

$9,023 \text{ acres}$

⑪ What percent of 0.4 is 0.96 ?

240%

⑫  $P = 60 \text{ mm}$ $W = 18 \text{ mm}$
 $L = ?$

$L = 12 \text{ mm}$

⑬ If the perimeter and length of a rectangle are 7.8 centimeters and 3.2 centimeters respectively, what is the width of the rectangle?

$W = 0.7 \text{ cm}$

⑭ If a number is decreased by 95% and the result is 45 , what is the original number?

900

⑮ If a number is increased by 8% and the result is 51 , what is the original number?

47.2

16) If 5 is increased to 15, what is the percent increase?

150%

17) If 75 is decreased to 50, what is the percent decrease?

33.3%

18) After three years, Andy's pet snake grew from 16 inches to 25 inches. By what percent did the snake's length grow during this time?

56.25%

19) After Mr. Johnson's stock value decreased by seven percent, the net value was \$7,497.66. What was the value of his stock before the decrease?

\$8062

20) You loan your brother Bob \$286 so that he can buy a used suit. If you charge him 3% simple interest daily, he accumulates \$328.90 of debt. How much time passed since he borrowed the money?

5 days

21) You put \$15,238 into a savings account that pays simple interest yearly. After three years, the account grows to \$17,523.70. Calculate the interest rate for the account.

5%

22) Larry has \$239.54 in his bank account. He started with \$203 and made simple interest

paid yearly for nine years. What was the interest rate for the account?

2%

23) Determine the initial velocity of an object that starts at $x_0 = 3$, ends at $x = 5$, and moves for $t = 1$ seconds with an acceleration of $a = 10$. Use the following formula: $x = x_0 + v_0 t + at^2/2$.

$v_0 = -3$

24) If the sum of three consecutive even integers is 294, find the integers.

96, 98, 100

25) If the sum of four consecutive odd integers is 112, find the integers.

25, 27, 29, 31

26) The sum of five consecutive even integers is 340. Find these integers.

64, 66, 68, 70, 72