Name _____
Due Date _____
Hour _____

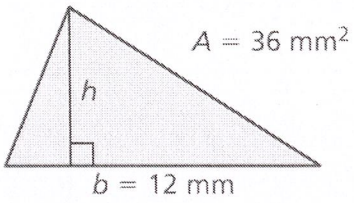
Homework 1-4

1. Solve the formula for the height of the figure.

$A = \frac{1}{2}bh$

$h =$ ☐

Use the new formula to find the height.



$h =$ ☐ mm

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2. Is the equation a literal equation?

$y = 4$

- ○ yes
- ○ no

---

3. Is the equation a literal equation?

$z = 4x + 9y$

- ○ yes
- ○ no

---

4. Solve the equation for y.

$\frac{1}{3}x + y = 4$

$y =$ ☐

---

5. Solve the equation for y.

$6 = 4x + 9y$

$y =$ ☐

---

6. Solve the equation for y. Leave your answer in terms of π.

$\pi = 7x - 2y$

$y =$ ☐

---

7. Solve the equation for y.

$6y - 1.5x = 8$

$y =$ ☐

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8. **YOU BE THE TEACHER** Your friend rewrites the equation $2x - y = 5$. Is your friend correct?

$$2x - y = 5$$
$$y = -2x + 5$$

- ○ yes
- ○ no

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9. Solve the formula for t.

$d = rt$

$t =$ ☐

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10. Solve the formula for m.

$e = mc^2$

$m =$ ☐

---

11. Solve the formula for C.

$$R - C = P$$

$C =$ ☐

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12. Solve the formula for a.

$$P = a + b + c$$

$a =$ ☐

---

13. Solve the formula for V.

$$D = \frac{m}{V}$$

$V =$ ☐

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14. **MODELING REAL LIFE** The formula $K = C + 273.15$ converts temperatures from Celsius C to Kelvin K.

a. Convert 200 degrees Celsius to Kelvin.

200° C = ☐ K

b. Solve the formula for C.

$C =$ ☐

c. Convert 300 Kelvin to Celsius. Write your answer using decimals.

300 K = ☐ $^\circ$C

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15. **PROBLEM SOLVING** The formula for simple interest is $I = Prt$.

a. Solve the formula for t, when r is the simple interest per year.

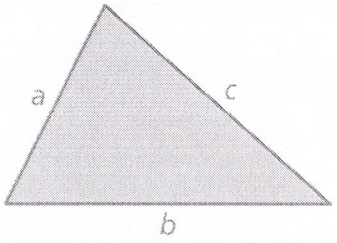
$t =$ ☐

b. Use the new formula to find the value of t in the table.

I	$75
P	$500
r	5%
t	

The value of t in the table is ☐ years.

16. **GEOMETRY** Use the triangle shown.



Perimeter = 42 feet

a. Write a formula for the perimeter P of the triangle.

$P =$ ☐

b. Solve the formula for b.

$b =$ ☐

c. Use the new formula to find b when a is 10 feet and c is 17 feet.

$b =$ ☐ ft