

Warm Up Grade 8

(x,y) which are you given
and where do you sub in

- 1) Find the missing value for the ordered pairs of $y = -2x + 5$
(show work)

x y
a) $(-5, \underline{\quad})$

given x fill in
Sub in

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

$$= -2(-5) + 5$$

$$= +10 + 5$$

$$= +15$$

$$(-5, +15)$$

x y
b) $(\underline{\quad}, -31)$

$$y = -2x + 5$$

$$-31 = -2x + 5$$

Solve for "x" (Rearrange)

$$-31 - 5 = -2x + 5 - 5$$

$$\frac{-36}{-2} = \frac{-2x}{-2}$$

$$+18 = x$$

$$(+18, -31)$$

$$y = 3x - 2$$

$$a) \begin{matrix} x & y \\ (4, & -) \end{matrix}$$

$$\begin{aligned} y &= 3(x) - 2 \\ &= 3(4) - 2 \\ &= 12 - 2 \\ &= 10 \end{aligned}$$

$$(4, 10)$$

$$b) \begin{matrix} x & y \\ (-, & -23) \end{matrix}$$

$$\begin{aligned} y &= 3x - 2 \\ \downarrow \\ -23 &= 3x - 2 \end{aligned}$$

$$\begin{aligned} -23 + 2 &= 3x - 2 + 2 \\ -21 &= \frac{3x}{3} \end{aligned}$$

$$\boxed{-7 = x}$$

$$(-7, -23)$$

Questions??

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8) Front/back	side/side	top/bottom
$A = b \times h$	$A = b \times h$	$A = b \times h$
$= 7 \times 22$	$= 7 \times 10$	$= 10 \times 22$
$= 154 \text{ cm}^2$	$= 70 \text{ cm}^2$	$= 220 \text{ cm}^2$

Total SA =

$$= 2(154 \text{ cm}^2) + 2(70 \text{ cm}^2) + 2(220 \text{ cm}^2)$$

$$= 308 + 140 + 440$$

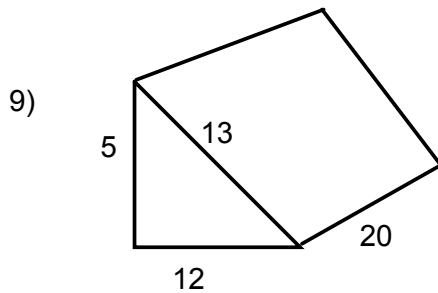
$$= 888 \text{ cm}^2$$

Area of whole = 4×14

$$= 56 \text{ cm}^2$$

SA with hole = $888 - 56$

$$= 832 \text{ cm}^2$$



Area of triangle = $b \times h / 2$

$$= (12 \times 5) / 2$$

$$= 60 / 2$$

$$= 30 \text{ cm}^2$$

a) $V = \text{A of tri} \times \text{height}$

$$= 30 \times 20$$

$$= 600 \text{ cm}^3$$

c)

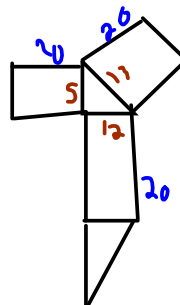
Area of Rec = $b \times h$	Area of Rec = $b \times h$	Area of Rec = $b \times h$
$= 12 \times 20$	$= 13 \times 20$	$= 5 \times 20$
$= 240 \text{ cm}^2$	$= 260 \text{ cm}^2$	$= 100 \text{ cm}^2$

Total SA = 2 triangle + rec + rec + rec

$$= 2(30) + 240 + 260 + 100$$

$$= 60 + 240 + 260 + 100$$

$$= 760 \text{ cm}^2$$



10) $\frac{\text{Difference}}{\text{original}} \times 100$

$\frac{3}{10} \times 100$

0.3×100
30%

11)ai) r : b
18 : 2
9 : 1

11)aii) b : g
2 : 4
1 : 2

11)aiii) r : b : total
18 : 2 : 24
9 : 1 : 12

11)aiv) g : b : r
4 : 2 : 18
2 : 1 : 9

11)biiii) r : total
18 : 24
9 : 12

$\begin{matrix} \times 3 \\ \times 4 \end{matrix} \left(\begin{matrix} 3: 4 \\ x: 36 \end{matrix} \right) \times 9$

red=27

12a) \$0.99 / 2 rolls
\$0.495/ roll

\$5.59/12 rolls
\$0.47 /roll
better buy

12b) \$3.99 / 500ml
\$0.00798/ ml
better buy

\$1.29/125 ml
\$0.01 /ml

or $\frac{\$1.29}{125 \text{ ml}} \times 4 = \frac{\$5.16}{500 \text{ ml}}$

13)a) 25 % off means we are paying 75%

75% of original is 34.99

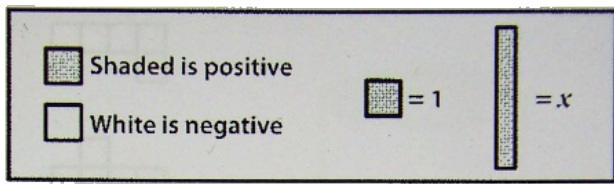
b) Tax = 0.13×34.99
= 4.55

$0.75 \text{ of } n = 34.99$

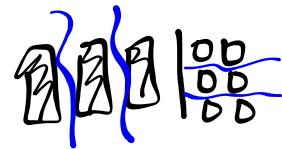
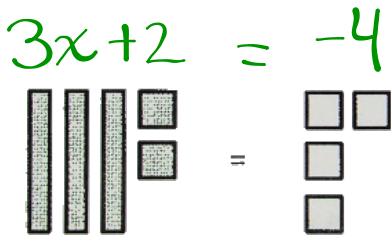
Price with tax = $34.99 + 4.55$
= \$39.54

$\frac{0.75 \times n = 34.99}{0.75 \quad 0.75}$

$n = \$46.65$



The diagram below represents an equation.



What would be the value of x for this equation?

$$\begin{aligned}
 3x + 2 &= -4 - 2 \\
 3x &= -6 \\
 \frac{3x}{3} &= \frac{-6}{3} \\
 x &= -2
 \end{aligned}$$

Given that $2w + 4t = 60$, and $t = 8$, find the value of w .

$$2(w) + 4(t) = 60$$

$$2w + 4(8) = 60$$

$$2w + 32 = 60$$

$$2w + \cancel{32} - \cancel{32} = 60 - 32$$

$$2w = 28$$

$$\frac{2w}{2} = \frac{28}{2}$$

$$w = 14$$

The Grade 8 students had a dance.
The DJ charged \$150 for setting up the music
plus \$3.00 per student who attended the dance.
The DJ was paid \$375.

How many students attended the dance?

let x represent # of students

per
for every
each } # goes
with
letter

$$3x + 150 = 375$$

$$3x + 150^{\color{red}-150} = 375^{\color{red}-150}$$

$$\frac{3x}{3} = \frac{225}{3}$$

$$\boxed{x = 75}$$

Kim used the distributive property to solve the following equation:
 $12(x - 3) = 72$. Check her work to see if her solution is correct.
 If there is an error, correct it.

$$\begin{aligned}
 12(x - 3) &= 72 \\
 12x - 36 &= 72 \\
 12x - 36 + 36 &= 72 - 36 \\
 12x &= 36 \\
 \frac{12x}{12} &= \frac{36}{12} \\
 x &= 3
 \end{aligned}$$

should add

$$\begin{aligned}
 12(x - 3) &= 72 \\
 12x - 36 &= 72 \\
 12x - \cancel{36} + \cancel{36} &= \underbrace{72 + 36} \\
 12x &= 108 \\
 \frac{12x}{12} &= \frac{108}{12} \\
 x &= 9
 \end{aligned}$$

The values for x and y are related as follows: $y = 2x + 5$.

If x increases by 3, what happens to y ?

$$y = 2(x+3) + 5$$

$2x + 6 + 5$

$2x + 11$

increased by 6

Eric is organizing a skating party. He has to pay \$50 to rent the rink and \$4 for lunch for each person. He made a table of values, but he made an error in one of the costs. Identify the error and provide the correct value. Provide an explanation for the correction.

$$4x + 50$$

# people p	1	2	3	4	5	6	7	8
Cost (\$) C	54	58	62	68	70	74	78	82

+4 +4 +6 +2 +4 +4 +4

Error

Should only increase by 4

$$y = -2x + 3$$

Determine the value of y for the ordered pair $(7, y)$.

Determine the value of x for the ordered pair $(x, 11)$.

Review Questions

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