

Learning Packet #2 Answers

Review #7

a. $-30w - 19$ a. $-(-4)^2 = -16$ b. $(-2-4)^2 - (-2)$
 $(-6)^2 + 2$
 $-36 + 2$ -34

Review #8

a. $-4 + 9x$ a. $(-2)^2 + (-2)^3 - 1$ c. $3(1) - 2(-1) + 4$
 $4 + -8 - 1$ $3 + 2 + 4$
 -5 17

Review #9

a. $15s - 10$ a. $-(-2)^2 + -(-2)^3 - 1$ c. $(-5+1)^2 - (2-4)$
 $-4 + -8 - 1$ $16 - 6$
 $-4 + 8 - 1$ 10
 3

Review #10

a. $2(-3)^2 - (-1)^3$ a. $-2(-3)^2 - (-1)^3$ c. $6(4+5) - 2$
 $18 - -1$ $-2(9) - -1$ $6(-1) - 2$
 19 $-18 + 1$ -8
 -17

Review #11

a. $-(-5)(1+8) + (-3)^2$ b. $-2x + -18 + 4x$ c. $\frac{-(-3)^2 - 9}{-3+1}$
 $5(-7) + 9$ $2x + -18$ $= \frac{-9 - 9}{-2} = \frac{-18}{-2} = 9$
 $-35 + 9$ -26

Review #12

a. $5(1+8) + 9$ b. $-2x + -6 + 2x - 7$ c. $9 + -1$
 $5(-1) + 9$ -13 8
 $-35 + 9$
 -26

Review #13

a. $-9 - (-3)^2$
 $-9 - 9$
 (-18)

b. $13 + -16 + 12x$
 $(12x - 3)$

c. $-2(5 + -2)^2$
 $-2(3)^2$
 (-18)

Review #14

a. $-(-5)^4 + (-5)^4$
 $-625 + 625$
 (0)

b. $5y - 4 + 6y$
 $(11y - 4)$

c. $18 - 1$
 (17)

Review #15

a. $16 + -8 - 1$
 (7)

b. $-3y + 4y - 10 - 1y - 6$
 (-16)

c. $-16 + 4 + 6$
 (-6)

Review #16

a. $4y^2 - 2y + x + 10$

b. $-6x - 24 - 12x - 16$
 $(-18x - 40)$

c. $1 + 4$
 (5)

Review #17

a. $-6x + -27 + 4x$
 $(-2x + -27)$

b. $-9 - 9x + 20x$
 $(11x - 9)$

c. $25 + 4$
 (29)

Review 18

a. $-y + 4y + 16 + -1y - 6$
 $(2y + 10)$

b. $2\{-5x + 4\}$
 $(-10x + 8)$

c. $-4 + 3 + -2$
 (-3)

Surface Area

Box A

original $l=8$
 $S.A. = 2(18) + 2(16) + 2(72)$
 $= 36 + 32 = 144$
 $= 212 \text{ in}^2$

you choose
 Answer will
 be same

double
 length
 $= 16$

$= 2(18) + 2(32) + 2(144)$
 $= 36 + 64 + 288$
 $= 388 \text{ in}^2$

Box B

original $l=6$
 $S.A. = 2(36) + 2(36) + 2(36)$
 $= 72 + 72 + 72$
 $= 216 \text{ in}^2$

double $l=12$
 $= 2(36) + 2(72) + 2(72)$
 $= 72 + 144 + 144$
 $= 360 \text{ in}^2$

Box A

Volume

original $= 2 \cdot 9 \cdot 8$
 $= 144 \text{ unit}^3$

Box B

$V = 6 \cdot 6 \cdot 6$
 $= 216 \text{ unit}^3$

Box B will hold more cereal

double
 length

new volume
 Box A $= 2 \cdot 9 \cdot 16$
 $= 288 \text{ units}^3$

new volume
 Box B $= 6 \cdot 6 \cdot 12$
 $= 432 \text{ units}^3$

when you double the length of a rectangular prism, your volume will double.

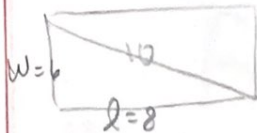
Mr. Manny's cereal

Box A $S.A. = 212 \text{ in}^2$
 $V = 144 \text{ unit}^3$

Box B $S.A. = 216 \text{ in}^2$
 $V = 216 \text{ in}^2$

I would choose Box B because it holds more with not much more surface area.

Mrs. Tindle's neighbor



$$a^2 + b^2 = c^2$$

$$6^2 + 8^2 = 10^2$$

$$36 + 64 = 100$$

$$100 = 100$$

$$b = 6$$

Fencing = perimeter
 $2(8) + 2(6)$
 $16 + 12$
 $28 \text{ meters of fence}$

area =

$$8 \cdot 6$$

$$48 \text{ m}^2$$

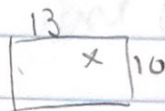
$$2x + 5$$



$$p = 2(2x+5) + 2(3x-2)$$

$$w = 3x - 2$$

$$l = 2(4) + 5$$



$$46 = 4x + 10 + 6x - 4$$

$$46 = 10x + 6$$

$$40 = 10x$$

$$4 = x$$

$$= 3(4) - 2$$

$$= 10 \text{ units}$$

$$w = 10 \text{ units}$$

$$a = 130 \text{ units}^2$$

Rolled out cookie dough - open ended (kind of)
 submit your work so I can give feedback

Pool

cover pool

area of rectangle - $\frac{1}{2}$ circle

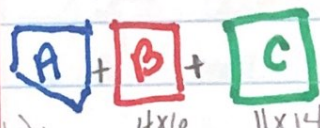
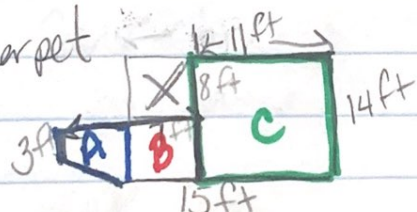
$$(20 \times 36) - \frac{1}{2} \pi r^2$$

$$720 - \frac{1}{2} (3.14) (9)^2$$

$$720 - 127.17$$

$$592.83 \text{ ft}^2$$

Carpet



$$\left(\frac{b_1 + b_2}{2} \right) h + 24 + 154$$

$$\left(\frac{3 + 11}{2} \right) 4 + 24 + 154$$

$$28 + 24 + 154$$

$$206 \text{ ft}^2$$

$$\times 1.05 = \$193.20$$

Metal Signs X5

$$(18 \cdot 15) + (4 \cdot 3) + \frac{1}{2} (7 \cdot 2) \times 5$$

$$(270 + 12 + 7) \times 5$$

$$289 \times 5$$

$$1,445 \text{ in}^2$$

Cost \$289

Yes! he has enough