

1.) Ms. Walser's class had 18 students. She used three equally weighted tests to determine their final grades. The class average for the first test was 92, and the class average for the second test was 77. If the overall class average was 84, what was the average score for the third test?

A) 74.3

B) 77

C) 83

D) 84.3

$$\frac{92 + 77 + X}{3} = 84$$

$X = \text{third test}$

$$\cancel{3} \frac{169 + X}{\cancel{3}} = 84.3$$

$$169 + X = 252$$

$$X = 83$$

2.) Which value of x makes the equation $\frac{2}{3}(x - 1) = 12$ true?

A) 7

B) 9

C) 17

D) 19

$$\frac{2}{3}X - \frac{2}{3} = 12$$

$$X = 19$$

$$\frac{2}{3}X = 12 + \frac{2}{3}$$

$$\frac{3}{2} \cdot \frac{2}{3}X = \frac{38}{3} \cdot \frac{3}{2}$$

Hwk #18 Answers:

1. $r = \frac{C}{2\pi}$

2. $d = \frac{C}{\pi}$

3. $l = \frac{P-2w}{2}$ or $\frac{P}{2} - w$

4. $B = \frac{S-L}{2}$

5. $h = \frac{V}{lw}$

7. $b_1 = \frac{2A}{h} - b_2$ or $\frac{2(A - \frac{1}{2}b_2h)}{h}$

12. $y = \frac{8-4x}{2} = 4 - 2x$ or $-2x + 4$

24. $y = mx + b$

26. a. $h = na$ b. 53 hits

31. $p = \frac{r+b}{a}$

33. $h = \frac{5A-2B}{2\pi r}$

35. $b = \frac{da}{c}$

39. $y = \frac{3w}{4}$

26. **Sports** You can use the formula $a = \frac{h}{n}$ to find the batting average a of a batter who has h hits in n times at bat.

a. Solve the equation for h .

b. If a batter has a batting average of .265 and has been at bat 200 times, how many hits does the batter have?

$$n: a = \frac{h}{n} \cdot n$$

$$h = na$$

$$h = (200)(.265)$$

1. $C = 2$

2. $\pi = \frac{C}{d}$

3. $P = 2$

4. $S = l$

5. Volu

12. $2y$

24. $\frac{V}{h}$

31. ap

33. SA

35. $\frac{a}{b}$

39. y

Section 2.6 Cont.

1.) Solve this equation for M

$$\frac{E}{F} = \frac{K+J}{MN}$$

$$\frac{EMN}{EN} = \frac{F(K+J)}{EN}$$

$$M = \frac{F(K+J)}{EN}$$

2.) Solve this equation for Q .

$$\frac{CQ-W}{R} + A = P-A$$

$$\frac{CQ-W}{R} = (P-A)R$$

$$CQ-W = R(P-A)$$

$$CQ = R(P-A) + W$$

$$Q = \frac{R(P-A) + W}{C}$$

3.) Solve for m $r^2 F = \frac{GMm}{r^2} \cdot r^2$

$$\frac{r^2 F}{GM} = \frac{\cancel{GM} m}{\cancel{GM}}$$

$$m = \frac{r^2 F}{GM}$$

4.) Solve this equation for G

$$B(N + AG) - D = X$$

$$\cancel{B} \cdot (N + AG) = \frac{X + D}{\cancel{B}}$$

$$\underset{-N}{N} + AG = \frac{X + D}{B} \underset{-N}{-N}$$

$$\frac{\cancel{AG} = \frac{X + D - N}{B}}{\cancel{A}}$$

5.) Solve for h

$$\frac{V}{\pi r^2} = \frac{\pi r^2 h}{\pi r^2}$$
$$h = \frac{V}{\pi r^2}$$

6.) Solve for L

$$P = 2L + 2W$$
$$-2W \quad -2W$$

$$P - 2W = 2L$$

$$L = \frac{P - 2W}{2}$$

7.) Solve for C

$$F = \frac{9}{5}C + 32$$
$$\begin{array}{r} -32 \\ -32 \end{array}$$
$$\frac{5}{9}(F - 32) = \frac{9}{5}C \cdot \frac{5}{9}$$
$$C = \frac{5(F - 32)}{9}$$

8.) Solve for m

$$2 \cdot k = \frac{1}{2}mv^2 \cdot 2$$
$$2k = mv^2$$
$$\frac{2k}{v^2} = m$$

9.) Solve for Q

$$\frac{C}{Q} = \frac{G}{A}$$

$$CA = GQ$$

$$Q = \frac{CA}{G}$$

Solve for A

$$\textcircled{2} \textcircled{5} \textcircled{4} \textcircled{1} \quad G \left(\frac{AM - BQ}{H \textcircled{3}} \right) + K = C$$

$$AM = \frac{H(C - K)}{G} + BQ$$

$$A = \frac{H(C - K)}{G} + BQ$$

$$G \left(\frac{AM - BQ}{H} \right) = C - K$$

$$\cancel{H} \cdot \frac{AM - BQ}{\cancel{H}} = \frac{C - K}{G}$$

$$AM - BQ = \frac{H(C - K)}{G}$$

- 1.) The length of a rectangle is 1 centimeter (cm) less than 3 times the width. If the perimeter is 54 cm, find the dimensions of the rectangle.

Step 1 You want to find the dimensions (the width and length).

Step 2 Let x be the width.

Then $3x - 1$ is the length.

3 times the width

1 less than

Step 3 To write an equation, we'll use this formula for the perimeter of a rectangle:

$$P = 2W + 2L \quad \text{or} \quad 2W + 2L = P$$

$$54 = 2W + 2(3W - 1)$$

$$54 = 2W + 6W - 2$$

$$54 = 8W - 2$$

$$56 = 8W$$

$$W = 7$$

$$l = 3W - 1$$

$$W = \text{width}$$

$$P = 54 \text{ cm.}$$

- 2.) The length of a rectangle is 5 inches (in.) more than twice the width. If the perimeter of the rectangle is 76 in., what are the dimensions of the rectangle?

$$76 = 2(2W + 5) + 2W$$

$$76 = 4W + 10 + 2W$$

$$76 = 6W + 10$$

$$66 = 6W$$

$$W = 11$$

$$P = 76 \text{ in}$$

$$l = 2W + 5 = 27$$

$$W = 11$$

You can now finish Hwk #16 Sec 2-6

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Problems: 13 - 16, 21 - 23, 27 Due Thursday

IXL #6 - J.7 & J.8 due Friday, Oct. 5th at 4pm!