

Warm up:

At an amusement park, you get 5 points for each bull's eye you hit, but you lose 10 points for every miss. After 30 tries, Yolanda has -90 points. How many bull's eyes did she have?

$$\begin{array}{r}
 5b - 10m = -90 \\
 \Rightarrow (b + m) = (30) \quad | \quad \times 5 \\
 \hline
 5b - 10m = -90 \\
 - (5b + 5m = 150) \\
 \hline
 -15m = -240 \\
 \hline
 -15 \quad -15 \\
 \hline
 m = 16
 \end{array}$$

$$\begin{array}{r}
 b + 16 = 30 \\
 -16 \quad -16 \\
 \hline
 b = 14
 \end{array}$$

14 bull's eyes

HW Solutions

(2)

$$x = 11x - 4$$

$$x + y = 92$$

$$11y - 4 + y = 92$$

$$12y - 4 = 92$$

$$\begin{array}{r} 12y - 4 = 92 \\ \hline 12y = 96 \\ \hline 12 \quad 12 \\ \hline y = 8 \end{array}$$

$$\begin{array}{r} 88 - 4 \\ 84 \end{array}$$

8 and 84

Q $l = 5w$

$$l - 24 = w + 24$$
$$5w - 24 = w + 24$$
$$\begin{array}{r} -w \\ \hline 4w - 24 = 24 \\ +24 \quad +24 \\ \hline 4w = 48 \\ \hline w = 12 \end{array}$$

$$12\text{cm} \times 60\text{cm}$$

$$(18) \quad f + p = 38$$

$$- (3f + p = 70)$$

$$\hline -2f = -32$$

$$\underline{\quad} \quad \underline{\quad}$$

$$f = 16$$

16 field goals

$$100(s + b) = 60000$$

$$100(0.05s + 0.1b) = 37500$$

$$5s + 5b = 30000$$

$$-(5s + 10b = 37500)$$

$$\begin{array}{r} -5b = -7500 \\ -5 \end{array}$$

$$b = 1500$$

$$\begin{array}{r} 60000 \\ -15000 \\ \hline 45000 \end{array}$$

\$45000

$$22 \quad 39(e + c) = (30) 39$$

$$10(4.30e + 3.90c) = (123) 10$$

$$39e + 39c = 1170$$

$$-(43e + 39c = 1230)$$

$$\begin{array}{r} -41e = -60 \\ \hline -4 \quad -4 \\ \hline e = 15 \end{array}$$

$$30 - 15 = 15$$

15 / 6 of each

$$\begin{array}{r} \$4.10 \\ + 30 \\ \hline \$123 \end{array}$$

$$\begin{aligned} 10(d+q) &= (100)10 \\ 10d + 25q &= 2140 \end{aligned}$$

$$\begin{array}{r} 10d + 10q = 1000 \\ -(10d + 25q = 2140) \\ \hline -15q = -1140 \\ \underline{-15} \quad \underline{-15} \\ q = 76 \end{array}$$

$$100 - 76 = 24$$

76 quarters
24 dimes

$$\textcircled{10} \quad \begin{aligned} 2(3p + 2n) &= (8.25) \cdot 2 \\ 3(2p + 3n) &= (8) \cdot 3 \end{aligned}$$

$$\begin{aligned} 6p + 4n &= 16.50 \\ -(6p + 9n) &= -24 \end{aligned}$$

$$\begin{array}{r} -5n = -7.5 \\ \hline -5 \quad -5 \\ \hline n = 1.5 \end{array}$$

$$\begin{array}{r} 3p + 3 = 8.25 \\ \underline{-3 \quad -3} \\ 3p = 5.25 \\ \underline{\frac{3}{3}} \\ p = 1.75 \end{array}$$

$$\begin{aligned} 2(1.75) + 2(1.5) &= \\ 3.5 + 3 &= \\ \hline \textcircled{\$6.50} \end{aligned}$$

$$(12) \quad 6g = 12\sigma \quad g = 2\sigma$$

$$12g + 24\sigma = 12$$

$$24\sigma + 24\sigma = 12$$

$$48\sigma = 12$$

$$\frac{48}{48} \quad \frac{12}{48}$$

$$\sigma = 0.25$$

0.5

 $\$0.50$

$$\textcircled{Q} \quad 12s - 18b = 2016$$

$$12(s + b) = (188)12$$

$$\begin{array}{r} 12s - 18b = 2016 \\ -(12s + 12b = 2256) \end{array}$$

$$\begin{array}{r} -30b = -240 \\ \hline -30 \quad \quad -30 \\ \hline b = 8 \end{array}$$

brody
8 pirnes

$$\textcircled{15} \quad (-4, 5) \quad (1, 2)$$

$$\frac{\Delta y}{\Delta x} = \frac{5-2}{-4-1} = -\frac{3}{5} = -\frac{3}{5}$$

$$y = -\frac{3}{5}x + b$$

$$(1) + b$$

$$+ b$$

$$y = -\frac{3}{5}x + \frac{13}{5}$$

$$\textcircled{18} \quad (4, -4) \quad (7, 3)$$

$$\frac{\Delta y}{\Delta x} = \frac{-6 - 3}{4 - 7} = \frac{-9}{-3} = 3$$

$$y = 3x + b$$

$$3 = 3(7) + b$$

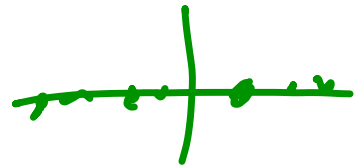
$$3 = 21 + b$$

$$\begin{array}{r} -21 \\ 3 - 21 \\ \hline -18 = b \end{array}$$

$$y = 3x - 18$$

(16)

$$X = 0$$



(34)

$$(3, -8) \text{ slope} = 4$$

$$y + 8 = 4(x - 3)$$

$$y = 0$$

(35)

$$2x - 5y = 40$$

$$2x - \cancel{5y} = 40$$

$$\frac{2x}{2} = \frac{40}{2}$$

$$x\text{-int} = 20$$

$$y\text{-int} = -8$$

⑫

$$f(x) = 2x^2 + 8x - 2$$

$$-\frac{8}{2(2)} = -\frac{8}{4} = -2$$

$$f(-2) = 2(-2)^2 + 8(-2) - 2$$

$$2(4) - 16 - 2$$

$$8 - 16 - 2$$

$$-8 - 2$$

$$(-2, -10) \quad -10$$

