

Math 60, Friday, 4/11

Q's on 1.5

Checkpoint #2 on 1.3, 1.4, 1.5

New Material 1.6

Mission #1 due Monday - Beginning of class

Q's on 1.5

77

$$71. \quad -56^\circ + 100 = 44^\circ \text{F}$$

97

99

$$73. \quad -1312 + 712 = \boxed{-600 \text{ft}}$$

73

71



77.

$$-7 + 15 + -5$$

$$= 3$$

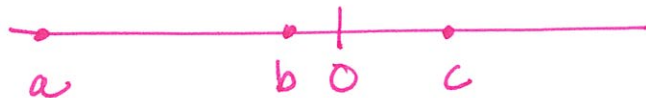
$$27 + 4 + (-2)^{+8} + (-12)$$

$$= 39 + (-14)$$

$$= 25$$

The football ended up on the
25 yard line.

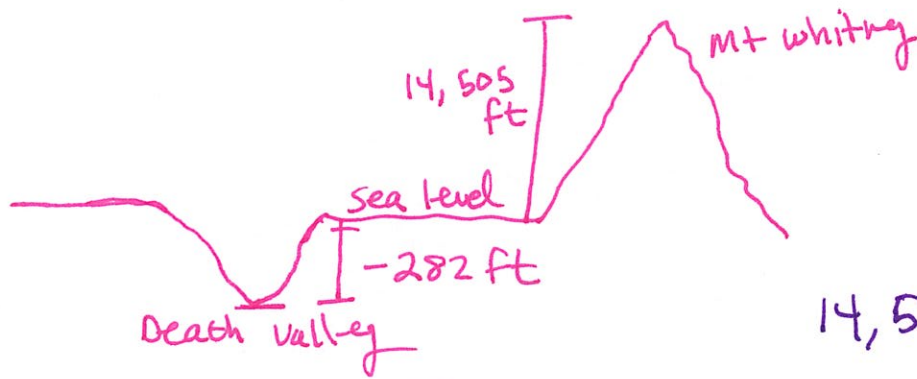
97.



97. $a + c$ negative

99. $|a + c|$ positive

Section 1.6 - Subtraction of Real Numbers



$$14,505 + 282 =$$

What's the difference

$$\begin{aligned} & 14,505 - (-282) \\ & = 14,505 + 282 \\ & = 14,787 \text{ ft} \end{aligned}$$

$$\begin{aligned} 8 - 4 & & 4 - 8 \\ = 8 + (-4) & = & 4 + (-8) \end{aligned}$$



$$\begin{aligned} \leftarrow 8 - 4 \\ \leftarrow 8 + (-4) \\ 8 - (-4) \rightarrow \\ 8 - (-4) \\ = 12 \end{aligned}$$

$$\begin{aligned} 10. \quad & 5 - (-17) \\ & = 22 \end{aligned}$$

$$\begin{aligned} 14. \quad & -21 - (-3) \\ & = -18 \end{aligned}$$

$$\begin{aligned} 22. \quad & 15 - (-15) \\ & = 30 \end{aligned}$$

$$\begin{aligned} 15 - 15 & = 0 \\ 15 + (-15) & = 0 \end{aligned}$$

$$\begin{aligned} 36. \quad & \frac{2 \cdot 2}{5 \cdot 2} - \left(-\frac{1}{10} \right) \text{ LCD} = 10 \\ & = \frac{4}{10} + \frac{1}{10} \\ & = \frac{5}{10} \\ & = \frac{1}{2} \end{aligned}$$

Expressions

$$\begin{aligned} 78. \quad & \underline{3a} + 7 - \underline{11a} \\ & = \underline{3a} + 7 + \underline{(-11a)} \\ & = -8a + 7 \end{aligned}$$

$$\begin{aligned} 82. \quad & 15 - (-3x) + 8x - (-10) \\ & = \underline{15} + \underline{3x} + \underline{8x} + \underline{10} \\ & = 11x + 25 \end{aligned}$$

Name _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Identify the terms in the algebraic expression.

1) $-7x - 4xy - y$ $-7x, -4xy, -y$

1) _____

Perform the indicated subtraction.

2) $-13 - (-13)$ $-13 + 13$

2) 0

3) $10 - (-4)$ $10 + 4$

3) 14

4) $6 - (-22)$ $6 + 22$

4) 28

5) $10 - 16$ $10 + (-16)$

5) -6

6) $-\frac{3 \cdot 2}{4 \cdot 2} \left(\frac{5}{8} \right)$ $-\frac{6}{8} + \frac{5}{8}$

6) $-\frac{1}{8}$

7) $-\frac{4 \cdot 2}{5 \cdot 2} \frac{7}{10}$ $-\frac{8}{10} - \frac{7}{10} = -\frac{15}{10} = -\frac{3}{2}$

7) $-\frac{3}{2}$

8) $-5.4 - 2.6$ $\begin{array}{r} 5.4 \\ 2.6 \\ \hline 8.0 \end{array}$

8) -8.0

Simplify the series of additions and subtractions.

9) $\frac{4}{9} - \frac{7}{18} + \frac{1}{3} - \frac{1}{6}$ $\frac{8}{18} - \frac{7}{18} + \frac{6}{18} - \frac{3}{18} = \frac{4}{18} = \frac{2}{9}$

9) $\frac{2}{9}$

10) $-12 - 2 - (-11) + (-7)$

$-12 - 2 + 11 + (-7) = -14 + 11 + (-7)$
 $= -3 + (-7)$

10) -10

Simplify the algebraic expression.

11) $3x - 9 - 6x$ $-3x - 9$

11) $-3x - 9$

12) $3 + 6y - 9y$ $3 - 3y$

12) $3 - 3y$

Solve.

13) City A has an elevation of 12,762 feet above sea level while city B has an elevation of 127 feet below sea level. Find the difference in elevation between those two cities.

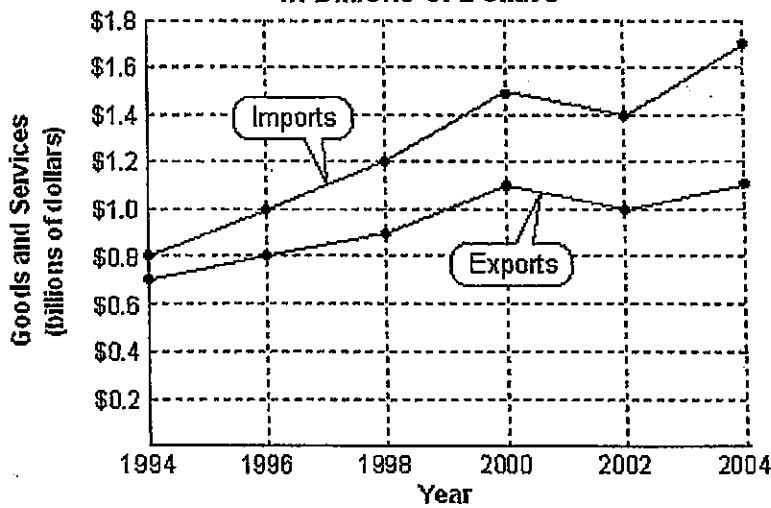
13) 12,889 ft

$12,762 - (-127)$
 $= 12,762 + 127$
12,889

14) The line graphs show that from 1994 through 2004, the United States imported goods and services from other countries worth more than the value of its exports to those countries. As a result, we had a trade deficit for each year during this period. Express all answers in billions of dollars.

14) _____

**United States International Trade,
in Billions of Dollars**



The data in the line graphs can be approximated using the formulas $E = 0.04n + 0.7$ and $I = 0.09n + 0.8$, where E represents exports in billions of dollars, I represents imports in billions of dollars, and n represents the number of years since 1994.

Use the formulas to determine how much we export to other countries in 2002.

$$\begin{aligned}
 E &= 0.04n + .7 && 2002 \quad n = 8 \\
 &= 0.04(8) + .7 \\
 &= \$1.02 \text{ Billion}
 \end{aligned}$$

$$\begin{array}{r}
 .04 \\
 8 \\
 \hline
 .32 \\
 .7 \\
 \hline
 1.02
 \end{array}$$

In 2002 we exported \$1.02 Billion in goods and services.

$$84. -6x - 9y - 4x + 15y$$

$$86. -|-8 - (-2)| - (-6)$$

$$\begin{aligned} 90. & \quad |24 - \cancel{(-16)}| - |-51 - \underline{(-31 + 2)}| \\ & \quad = |24 + 16| - |-51 - \cancel{(-29)}| \\ & \quad = |40| - |-22| \\ & \quad = 40 - 22 \\ & \quad = 18 \end{aligned}$$

Name _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Identify the terms in the algebraic expression.

1) $-7x - 4xy - y$

1) _____

Perform the indicated subtraction.

2) $-13 - (-13)$

2) _____

3) $10 - (-4)$

3) _____

4) $6 - (-22)$

4) _____

5) $10 - 16$

5) _____

6) $-\frac{3}{4} - \left(-\frac{5}{8}\right)$

6) _____

7) $-\frac{4}{5} - \frac{7}{10}$

7) _____

8) $-5.4 - 2.6$

8) _____

Simplify the series of additions and subtractions.

9) $\frac{4}{9} - \frac{7}{18} + \frac{1}{3} - \frac{1}{6}$

9) _____

10) $-12 - 2 - (-11) + (-7)$

10) _____

Simplify the algebraic expression.

11) $3x - 9 - 6x$

11) _____

12) $3 + 6y - 9y$

12) _____

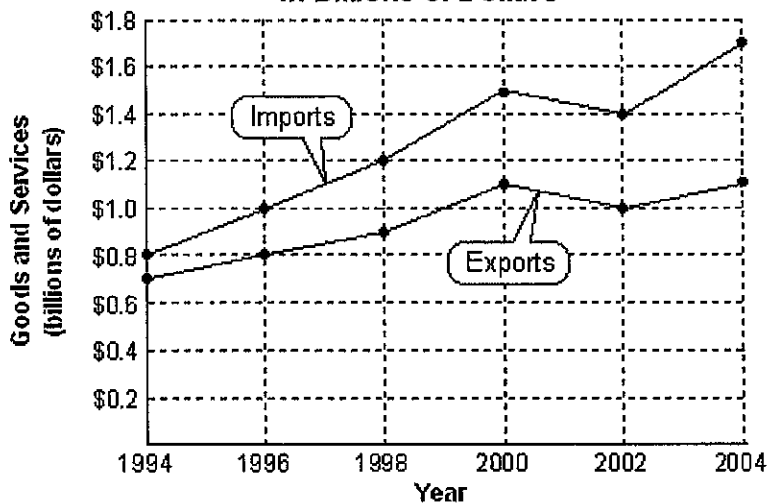
Solve.

13) City A has an elevation of 12,762 feet above sea level while city B has an elevation of 127 feet below sea level. Find the difference in elevation between those two cities.

13) _____

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