

Evaluating Algebraic Expressions

Same process as checking your answers.

Task 1: Find the value of each expression when $x = 2$ & $y = -5$.

a) $\frac{x-y}{12+x} = \frac{2-(-5)}{12+2} = \frac{2+5}{14} = \frac{7}{14} = \frac{1}{2}$

b) $x^2 - 3y = (2)^2 - 3(-5) = 4 + 15 = 19$

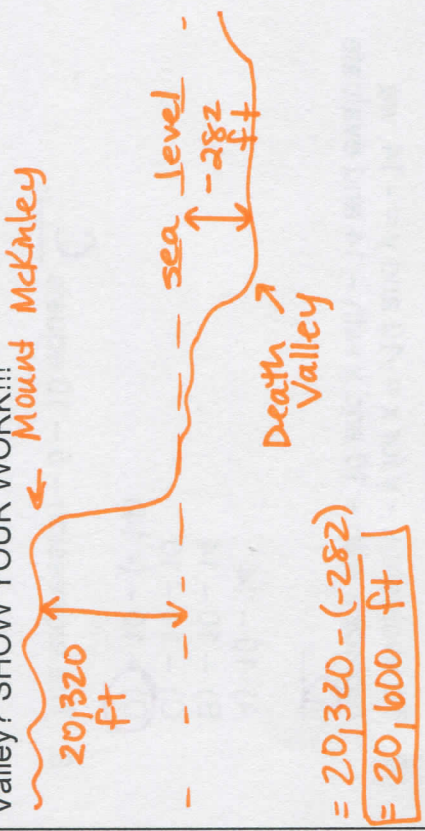
When $x = -3$ & $y = 4$.

c) $\frac{7-x}{2y+x} = \frac{7-(-3)}{2(4)+(-3)} = \frac{7+3}{2(4)-3} = \frac{10}{8-3} = \frac{10}{5} = 2$

d) $y^2 + x = (4)^2 + (-3) = 16 - 3 = 13$

Application Real World Problems

The highest point in the US is the top of Mount McKinley, at a height of 20,320 feet above sea level. The lowest point is Death Valley, CA, which is 282 feet below sea level. How much higher is Mount McKinley than Death Valley? SHOW YOUR WORK!!!



Task 2:

On Tuesday morning, a bank account balance was \$282. On Thursday, the account balance had dropped to -\$75. Find the overall change in this account balance. SHOW YOUR WORK!!!

$-75 \leftarrow ? \rightarrow 282$

$= 282 - (-75)$
 $= 282 + 75$
 $= \$357$

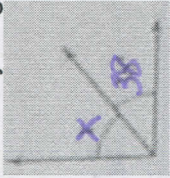
Finding Complementary & Supplementary Angles

$C = 90^\circ$ $S = 180^\circ$

Complementary: angles that add up to 90°
 - Complement = $90 - x$

Supplementary: angles that add up to 180°
 - Supplement = $180 - x$

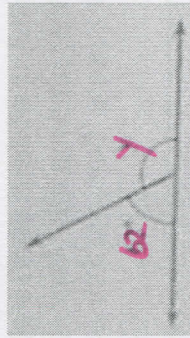
Task 3: Find each unknown complementary or supplementary angle.



$$90 - 38 = x$$

$$x = 52^\circ$$

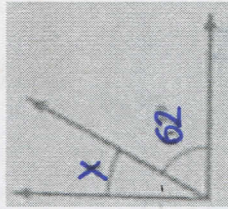
a)



$$180 - 62 = y$$

$$y = 118^\circ$$

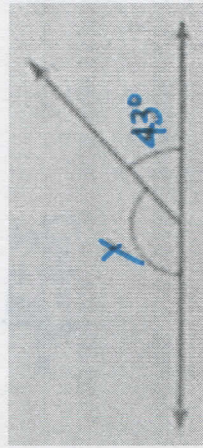
b)



$$90 - 62 = x$$

$$x = 28^\circ$$

c)



$$180 - 43 = y$$

$$y = 137^\circ$$

d)

Summary Vocabulary

$$7 - x \quad x - 7$$

1. 7 minus a number: $7 - x$
2. 7 subtracted from a number: $x - 7$
3. A number decreased by 7: $x - 7$
4. 7 less than a number: $7 - x$
5. A number less than 7: $7 - x$
6. A number subtracted from 7: $7 - x$

Multiple choices: Select the correct lettered response following each problem.

7. To evaluate $x - y$ for $x = -10$ and $y = -14$, we replace x with -10 and y with -14 and evaluate D.

- A) $10 - 14$
- B) $-10 - 14$
- C) $-14 - 10$
- D) $-10 - (-14)$

8. The expression $-5 - 10$ equals C.

- A) $5 - 10$
- B) $5 + 10$
- C) $-5 + (-10)$
- D) $10 - 5$

Still need help with: