

## Warm Up

9/10/18

1. Simplify:  $-4[-3(2^3 - 3^2)] + 10$

$$\begin{aligned} & [-3(8-9)] \\ & [-3(-1)] \\ & \rightarrow -4(3) + 10 \\ & -12 + 10 \end{aligned}$$

$$\begin{aligned} (-3)^2 &= 9 \\ -3^2 &= -9 \end{aligned}$$

2. Simplify:  $-3(2x + 5) - 1(-8x + 4)$

$$\begin{aligned} & \boxed{-6x} \boxed{-15} \boxed{+8x} \boxed{-4} \\ & \boxed{2x - 19} \end{aligned}$$

3. Evaluate:  $6x - y + z^2$  if  $x=4$   $y=-7$   $z=-3$

$$\begin{aligned} & 6(4) - (-7) + (-3)^2 \\ & 24 + (+7) + 9 \\ & 31 + 9 \\ & \boxed{40} \end{aligned}$$

# Integer Word Problems

# MATHinking

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**C**ircle the numbers



**U**nderline the question



**B**ox key words and use  
Math notation



**E**liminate extra info



**S**how your work to  
solve the problem

1. ~~A submarine is cruising at 40m below~~  
~~sea level~~ The submarine ascends 18m.  
What is the submarine's new location?

$$-40 + 18$$

-22 meters

22 meters  
below sea level

2. A bird flies 6 yards <sup>+</sup> above the ocean searching for fish. A fish swims 2 yards below the surface. How far apart are the fish and the bird?

$$6 - (-2)$$
$$6 + 2$$

8 yards

3. ~~Last week Jenny opened a bank account~~  
and deposited \$120. ~~This week she~~  
withdrew \$42 and wrote a check for  
\$21.50 What is her account balance  
now?

$$120 - 42 - 21.50$$

$$\begin{array}{r} 78.00 \\ - 21.50 \\ \hline 56.50 \end{array}$$

$$\begin{array}{r} 78 - 21.50 \\ \hline \boxed{\$56.50} \end{array}$$



4. The record high temperature in Atta,  
Alaska is 72 degrees, whereas the record  
low temperature is -47 degrees. What is  
the difference in the two temperatures?

$$72 - (-47)$$

$$72 + 47$$

$$119^{\circ}$$

5. ~~While in science class, Randy~~ conducted 4 trials of recording the temperature of water. The temperatures were -4, 11, -9 & 10 degrees. What is the average temperature?

$$\frac{(-4) + (11) + (-9) + (10)}{4}$$

$$\frac{8}{4} = 2^{\circ}$$