

1) **Subtracting** is the same as **adding** the **opposite**.
 First, change each subtraction expression below to addition, then solve.

a) $-17 - 28$

b) $50 - (-4)$

c) $-9 - 12 + |-20|$

2) The difference between two negative integers

A

A positive integer

B

Which statement is true?

- (A) A is greater than B.
- (B) B is greater than A.
- (C) A and B are equal.
- (D) There is not enough information to tell which is greater.

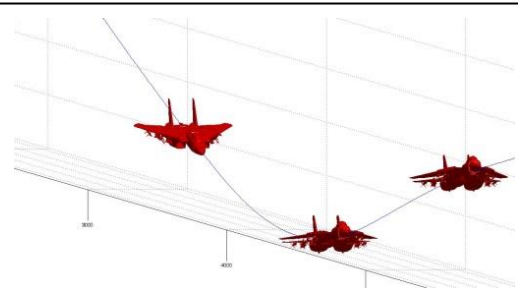
3) Find the value of the expression below.

$$\frac{125}{0.5} - (-1.2)(7)$$

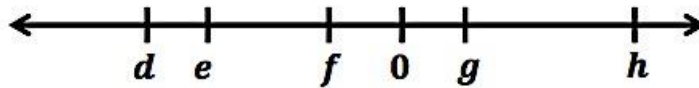
4) At the State Fair, ride tickets can be purchased for \$0.35 each. Each ride requires a certain number of tickets. Dresden wanted to ride two rides and eat a Krispy Kreme cheeseburger. The burger cost \$4.75 and the rides required a total of 13 tickets. Write and solve a mathematical expression to determine how much money all this fun will cost Dresden.



- 5) After take-off, an airplane climbs to an altitude of 5.103 miles. On its path, it descends 0.018 miles, rises 1.79 miles, descends 0.0024 miles, and ascends another 0.009 miles. As it begins its final descent, what is the altitude of the plane?



- 6) The number line shown below is drawn to scale. Use it to complete each statement by filling in each rectangle using $<$, $>$, or $=$.



A) $f + d$ 0

B) $g - e$ f

C) $f \div d$ 0

D) de hf

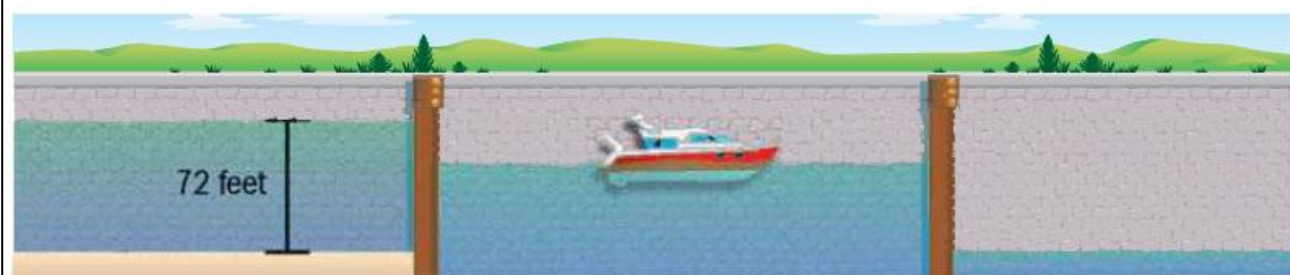
E) $|h|$ 0

F) $d - g$ $g - e$

G) $\frac{h}{d}$ $|f|$

H) $h \cdot e$ $\frac{d}{f}$

- 7) In the Panama Canal, a system of locks releases water from upper chambers into lower chambers so that ships can move through the canal. The water level in an upper chamber begins at 72 feet and falls 3 feet every minute for 9 minutes. Write and solve an integer expression to determine the depth of the water after 9 minutes.



8)

The sum of two negative integers

A

The quotient of two negative integers

B

Which statement is true?

- (A) A is greater than B.
- (B) B is greater than A.
- (C) A and B are equal.
- (D) There is not enough information to tell which is greater.

9) Represent each of the situations below with an appropriate integer. Then, order the integers from least to greatest.

a gain of 5 yards in football

a debt of \$100

50 feet below sea level

climbing 40 feet per second

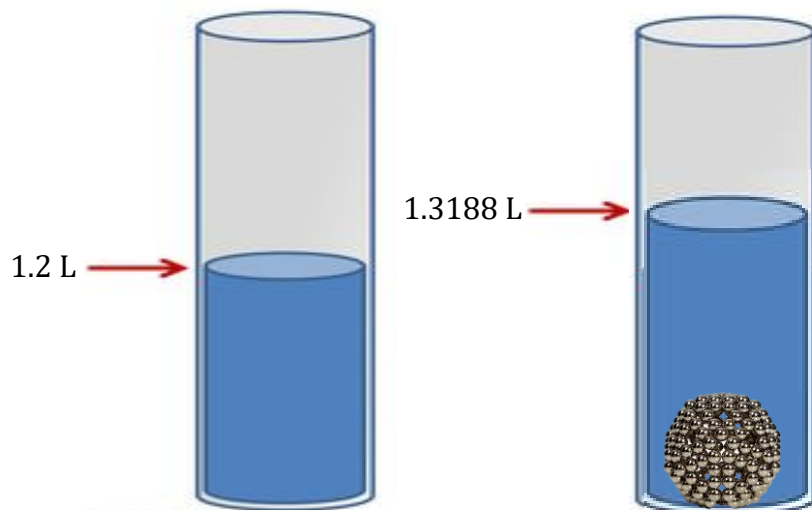
stock price falling by \$8

withdrawing \$40 from the ATM

depositing a \$115 check

a temperature of 23° C

10) A single buckyball has a volume of 0.55 mL. A cluster of buckyballs is dropped into a graduated cylinder as shown, causing a rise in the water level. How many buckyballs are in the cluster?



11) Write and solve an **integer** expression to represent this situation.

While scuba diving, Max dives to a depth of 60 feet, then rises 25 feet, descends 10 feet, then ascends 26 feet. What is Max's depth now? (express your answer as an integer value)



12) Name the underlined place value, then round to that place.

a) 175.019

b) 1,895.91

c) 0.00718

13) Vivi was doing some scrapbooking. She glued the picture, with the dimensions shown below, in the center of the page with dimensions shown. Find the area of the photograph. What is the perimeter of the yellow paper background?



14) Calculate the following metric conversions.

$$56 \text{ mL} = \underline{\hspace{2cm}} \text{ L}$$

$$12 \text{ kg} = \underline{\hspace{2cm}} \text{ mg}$$

$$0.025 \text{ km} = \underline{\hspace{2cm}} \text{ mm}$$

