

1. Which expression must be equal to  $m - n$ ?

- A  $-m + -n$
- B  $-m + n$
- C  $m + -n$
- D  $m + n$

2. Which statement describes the greatest absolute change?

- A A tree grows from 29 feet to 61 feet tall.
- B The temperature rises from  $-32$  degrees to  $-3$  degrees.
- C The balance in a checking account goes from  $-\$8$  to  $\$27$ .
- D The number of available tickets for a concert drops from 170 to 139.

3. Emma and Jerry are playing golf. The scorecard shows Emma scored  $+3$  and Jerry scored  $-1$ . What is the difference between Emma and Jerry's scores?

- A  $-4$
- B  $-2$
- C  $2$
- D  $4$

4. A hiker is at an elevation of 238 feet above sea level. He climbs downward until his elevation has decreased by 144 ft. Which expression can be used to determine his current elevation above sea level?

- A  $238 + (-144)$
- B  $238 - (-144)$
- C  $(-238) + 144$
- D  $(-238) - 144$

5. What is the distance between  $-3\frac{1}{2}$  and  $\frac{3}{4}$  on the number line?

6. Which expression is equivalent to the expression below?

$$18.2 - 7.9 + (-4.8) - (-6.3)$$

- A  $18.2 + (-7.9) + 4.8) + 6.3$
- B  $18.2 + 7.9 + 4.8 + (-6.3)$
- C  $18.2 + (-7.9) + (-4.8) + 6.3$
- D  $18.2 + 7.9 + (-4.8) + (-6.3)$

7. Serafine went shopping and bought the following items:

**SERAFINE'S SHOPPING LIST**

1 loaf bread	\$2.99
1 jar peanut butter	\$3.19
3 pounds apples	\$2.59

She had one coupon for \$0.25 off and another for \$0.40 off. Which expression represents the total amount she needs to pay?

- A  $\$2.99 + \$3.19 + \$2.59 + \$0.25 + \$0.40$
- B  $\$2.99 + \$3.19 + \$2.59 + (\$0.25 - \$0.40)$
- C  $\$2.99 + \$3.19 + \$2.59 + (-\$0.25 + \$0.40)$
- D  $\$2.99 + \$3.19 + \$2.59 + (-\$0.25) + (-\$0.40)$

8. Dean owes \$14 on his credit card. He subtracts \$5.50 of this credit card debt by making a payment. Dean writes this subtraction equation to represent what he owes now.

$$-14 - (-5.5) = ?$$

**Part A:** Rewrite Dean's equation so that it is an addition equation, and solve it to find what he owes now.

**Part B:** Show how Dean's equation can be represented on a number line.

9. The table below shows the thickness of different types of steel sheeting.

Steel Sheeting	A	B
Thickness (in inches)	$1\frac{7}{20}$	$2\frac{3}{20}$

Which sum could be used to find the difference in thickness between sheeting A and sheeting B?

A  $\left(-2\frac{3}{20}\right) + \left(-1\frac{7}{20}\right)$

B  $2\frac{3}{20} + 1\frac{7}{20}$

C  $2\frac{3}{20} + \left(-1\frac{7}{20}\right)$

D  $\left(-2\frac{3}{20}\right) + 1\frac{7}{20}$

10. Which expression is equivalent to  $-10\frac{1}{2} - 2\frac{3}{4}$ ?

A  $-10\frac{1}{2} + \left(-2\frac{3}{4}\right)$

B  $-10\frac{1}{2} - \left(-2\frac{3}{4}\right)$

C  $10\frac{1}{2} + \left(-2\frac{3}{4}\right)$

D  $10\frac{1}{2} - \left(-2\frac{3}{4}\right)$

11. The price of one share of a stock increased by \$3 on Monday and then decreased by \$4 on Tuesday. Which expression shows the change in the price of a share of the stock in two days?

A  $3 + (-4)$

B  $3 - (-4)$

C  $4 + (-3)$

D  $4 - (-3)$

12. Mandy is playing a game. Early in the game she had  $-250$  points. Now Mandy has 350 points. What was the change in Mandy's score?
- A  $-600$   
B  $-100$   
C  $100$   
D  $600$
13. Which expression can be used to find the distance between an elevation of 510 feet above sea level and 461 feet below sea level?
- A  $|-510| - 461$   
B  $510 + -461$   
C  $|-510 - (-461)|$   
D  $510 + |-461|$
14. Which expression is equivalent to  $7\frac{3}{4} - \left(3\frac{1}{2}\right)$ ?
- A  $7.75 + (-3.5)$   
B  $7.75 - (-3.5)$   
C  $3.5 + (-7.75)$   
D  $3.5 - (-7.75)$
15. A monument that is 183.5 feet tall is built on a site that is 71.2 feet below sea level. How many feet above or below sea level is the top of the monument?
- A 254.7 feet above sea level  
B 112.3 feet above sea level  
C 254.7 feet below sea level  
D 112.3 feet below sea level
16. Which expression represents the distance between  $-3$  and 5 on the number line?
- A  $-3 + 5$   
B  $-3 - 5$   
C  $|-3 + 5|$   
D  $|-3 - 5|$