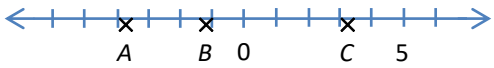
TB(1A) Ch. 2 Directed Numbers

Multiple Choice Questions

1. [16-17 Standardized Test, #6]

The figure shows the positions of three numbers A, B and C on the number line. Estimate the value of the expression $(A-B)C$.



A. –15
B. –9
C. 9
D. 15

2. [16-17 Mid-year Exam, #3]

Arrange $-1,\ -1\frac{1}{2},\ 1$ and $\frac{1}{2}$ in descending order.

A. $-1\frac{1}{2},\ -1,\ \frac{1}{2},\ 1$
B. $\frac{1}{2},\ 1,\ -1\frac{1}{2},\ -1$
C. $1,\ \frac{1}{2},\ -1\frac{1}{2},\ -1$
D. $1,\ \frac{1}{2},\ -1,\ -1\frac{1}{2}$

3. [16-17 Mid-year Exam, #11]

It is given that a and b are positive numbers and c is a negative number. Which of the following must be true?

I. abc is negative.
II. $a-b-c$ is positive.
III. $\frac{ac^2}{b}$ is positive.

A. I and II only
B. I and III only
C. II and III only
D. All of the above

4. [16-17 Final Exam, #18]

Which of the following are true?

I. $-a-(+2017)=-(2017+a)$

II. The product of a positive number n and its opposite number must be smaller than n.

III. If y is a negative number, then $y<2y$.

A. I and II only
B. I and III only
C. II and III only
D. I, II and III

5. [17-18 Standardized Test #5]

If $x>-2.5$ and $x<+2$, which of the following is/are possible value(s) of x?

I. +2 II. –1 III. –3

A. II only **B.** I and II only
C. I and III only **D.** I, II and III

6. [17-18 Standardized Test #6]

Which of the following expression(s) is/are negative in value?

I. 2016 – 2017

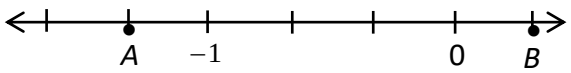
II. (–2016) – (–2017)

III. $(-1)^{2017}$

A. II only **B.** I and II only
C. I and III only **D.** I, II and III

7. [17-18 Mid-year Exam#2]

Consider the following number line. What numbers do A and B represent?



A. $A=-1.5,\ B=0.5$
B. $A=-2,\ B=1$
C. $A=-1\frac{1}{3},\ B=1$
D. $A=-\frac{4}{3},\ B=\frac{1}{3}$

8. [17-18 Mid-year Exam#12]

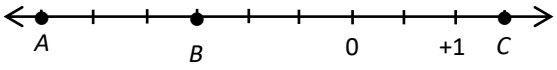
Which of the following is/are positive?

I. -2^{2018}
II. $(-2 \div 3)^4$
III. $-2+1+7$

A. I only
B. II only
C. I and III only
D. II and III only

9. [18-19 Standardized Test #1]

Refer to the number line below, find the value of $B + C - A$.



A. –6 **B.** –3
C. 3 **D.** 6

10. [18-19 Standardized Test #2]

If x is an integer that satisfies $x > -3$, which of the following is a possible value of x ?

A. –4 **B.** –3.01
C. –2.99 **D.** –2

11. [18-19 Standardized Test #8]

If $a < 0$, $b > 0$ and $c > 0$, the sign of $-\frac{a}{c}+\frac{c}{b}$

A. is positive.
B. is negative.
C. can be positive or negative.
D. cannot be determined.

12. [18-19 Mid-year Exam #3]

How many integers are there between -5.7 and 3.5?

A. 7
B. 8
C. 9
D. 10

13. [18-19 Mid-year Exam #4]

Arrange $-\frac{5}{2}, -1\frac{2}{3}, 0, 4, -3$ in ascending order.

A. $-3 < -\frac{5}{2} < -1\frac{2}{3} < 0 < 4$
B. $-3 < -1\frac{2}{3} < -\frac{5}{2} < 0 < 4$
C. $4 > 0 > -1\frac{2}{3} > -\frac{5}{2} > -3$
D. $4 > 0 > -\frac{5}{2} > -1\frac{2}{3} > -3$

14. [18-19 Mid-year Exam #11]

$\frac{(-13)-(-4)}{(-2)^2+(-7)} =$

A. $\frac{17}{11}$.
B. $\frac{-9}{11}$.
C. -3.
D. 3.

15. [18-19 Final Exam, #11]

If $a < 0$ and $b > 0$, which of the following expressions must be positive?

I. $-a^3$
II. $(-b)^4$
III. $(a+b)^5$

A. I and II only
B. II and III only
C. I and III only
D. I, II and III

16. [19-20 Standardized Test 1, #2]

A lift is on the second floor below the ground. It goes up seven floors. Which floor is it on now?

A. fifth floor above the ground
B. seventh floor above the ground
C. ninth floor above the ground
D. fourteenth floor above the ground

17. [19-20 Standardized Test 1, #8]

Which of the following give the same result?

I. $(-750) \div (-5) \div (-6)$

II. $(-35) \div (-7) \times (-5)$

III. $(-200) \div [(-96) \div (-12)]$

A. I and II only **B.** I and III only

C. II and III only **D.** I, II and III

18. [19-20 Mid-year, #3]

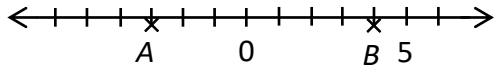
Arrange 2, $-\frac{9}{2}$, $-\frac{9}{4}$ and 0 in descending order.

A. $-\frac{9}{2}, -\frac{9}{4}, 0, 2$ **B.** $-\frac{9}{4}, -\frac{9}{2}, 0, 2$

C. $2, 0, -\frac{9}{2}, -\frac{9}{4}$ **D.** $2, 0, -\frac{9}{4}, -\frac{9}{2}$

19. [19-20 Mid-year, #4]

The figure shows the positions of two numbers A and B on the number line. Estimate the value of the expression $A - B$.



A. –7 **B.** –1
C. 1 **D.** 7

20. [20-21 Mid-Year, #8]

Arrange the following numbers in ascending order.

$$-\frac{1}{3}, -\frac{1}{6}, +\frac{1}{8}, +\frac{1}{4}, -\frac{1}{2}$$

A. $-\frac{1}{2}, -\frac{1}{3}, -\frac{1}{6}, +\frac{1}{8}, +\frac{1}{4}$

B. $-\frac{1}{6}, -\frac{1}{3}, -\frac{1}{2}, +\frac{1}{8}, +\frac{1}{4}$

C. $+\frac{1}{4}, +\frac{1}{8}, -\frac{1}{2}, -\frac{1}{3}, -\frac{1}{6}$

D. $+\frac{1}{4}, +\frac{1}{8}, -\frac{1}{6}, -\frac{1}{3}, -\frac{1}{2}$

21. [20-21 Mid-Year, #13]

It is given that P and R are negative numbers and Q is a positive number. Which of the following expressions must give a positive value?

A. $P + Q - R$

B. $P - Q \times R$

C. $P + Q \div R$

D. $P \times Q \div R$

22. [20-21 Mid-Year, #14]

Which of the following statements must be correct?

A. The greatest negative number is −1.

B. The sum of two negative numbers is negative.

C. The product of two negative numbers is negative.

D. The opposite number of a number is always smaller than itself.

23. [20-21 Final Exam, #10]

If G is a positive number and H is a negative number, which of the following must be positive?

A. $G \times H$

B. $G \div H$

C. $G^2 + H$

D. $G + H^2$

~ End ~