TEACHING
PECT-PAPA
Pennsylvania Educator Certification Tests

Latest Version: 6.0

Question: 1

Which of the following would NOT satisfy $x \geq \frac{2}{5}$?

A. $x = \frac{5}{11}$
B. $x = \frac{3}{7}$
C. $x = \frac{1}{2}$
D. $x = \frac{1}{3}$

Answer: D

Explanation:

To compare fractions with unlike denominators, we can rewrite each fraction with equivalent denominators. To do so, we must first identify the least common denominator, or LCD. The LCD is the least common multiple of the denominators. Here, the LCD of each answer choice is 55, 35, 10, and 15 for A, B, C, and D respectively. Next, we must rewrite each fraction for comparison, while maintaining equivalence. Let's start with $\frac{5}{11}$. Our new denominator, 55, is five times greater than our original denominator, 11. To maintain equivalence, we must make our new numerator five times greater than our original numerator. To do so, we multiply our original numerator, 5, by 5, which equals 25. That makes our new fraction $\frac{5}{55}$. We do the same for $\frac{2}{5} = \frac{22}{55}$, and once our denominators are equivalent, we can simply compare our numerators to determine the greater value. Because 25 is greater than 22, we know that $\frac{25}{55}$ is greater than $\frac{22}{55}$, or $\frac{5}{11} > \frac{2}{5}$. We follow the same logic to evaluate each answer choice to find that $\frac{1}{3} < \frac{2}{5}$.

Question: 2

Which of the following statements is true?

A. -6 is to the right of -5 on the number line
B. -7 is to the left of -2 on the number line
C. 0 is to the left of -I on the number line
D. 7 is to the left of -2 on the number line

Answer: B

Explanation:

The number line orders numbers from least to greatest. When comparing any two numbers, the smaller value will always be to the left of the greater value. Because —7 is less than —2, -7 will

always be to the left of -2 on the number line. All of the other options have greater values placed to the left of smaller values. This can never be true on any number line.

Question: 3

Consider the number set {-1, 19, -5, 0, 15.3, 15.05, -3}. Which of the following choices shows the number set in order from least to greatest?

A. -1, -3, -5, o, 15.05, 15.3, 19
B. -5, -3, -1, o, 15.3, 15.05, 19
C. -5, -3, -1, o, 15.05, 15.3, 19
D. 0, -5, -3, -1, 15.05, 15.3, 19

Answer: C

Explanation:
When ordering negative numbers, it helps to remember that the largest digit has the smallest value. That makes -5 our smallest value, followed by —3, and finally —1. Next comes O because O separates our negative numbers from our positive numbers. To compare decimals, we can insert zeros at the end of each number so that each value has the same number of digits. Here, that would look like 15.05 and 15.30. When we start comparing digits from left to right, we see that the first place value that differs is the tenths place. Because 3 is greater than 0, we know that 15.3 is greater than 15.05. Finally, our greatest number of the set is 19 because positive 19 is greater than all the other numbers in the set. That makes our ordered list -5, -3, -1, 0, 15.05, 15.3, 19.

Question: 4

Giselle is selling notebooks at the school store. She earns $45.00 for selling 30 notebooks.
How much is Giselle charging for each notebook?

A. $135.00
B. $3.00
C. $1.50
D. $1.25

Answer: C

Explanation:
Each notebook costs $1.50. To find the cost of each notebook, we must divide the total amount of money earned, $45.00, by the number of notebooks sold, 30. When we divide 45 by 30, we know that 30 can "fit" into 45 one time, with a remainder of 15. We can turn our remainder into a fraction by making our remainder the numerator and our divisor the denominator, creating the fraction $\frac{15}{30}$, or $\frac{1}{2}$. When working with money, 1 whole and $\frac{1}{2}$ represents one and a half dollars, or $1.50. Giselle charged $1.50 for each notebook.

Question: 5

Krystal purchased a pair of sunglasses for S19.99 and a scarf for $27.50. She paid with a $50.00 bill. How much change did she receive?

A. $47.49
B. $17.49
C. $3.61
D. $2.51

Answer: D

Explanation:
First we must determine the total amount of money Krystal spent. To do so, we must add the cost of the sunglasses, $19.99, and the scarf, $27.50. To add decimals, we stack the numbers so that the decimal points are directly on top of one another. Then, we add using the traditional algorithm, bringing the decimal point straight down into our sum. This gives us a total cost of $47.49. To determine Krystal's change, we must subtract our total, $47.49, from $50.00. Again, we must be sure to stack our decimal points directly on top of one another. Then we subtract as normal, bringing our decimal point straight down into our answer. We need to be careful that we borrow when necessary. The difference of $50.00 and $47.49 is $2.51. Krystal will receive change in the amount of $2.51.

Question: 6

The candy store charges $1.30 per pound. Artie's bag of candy weighs 2.1 pounds. How much will Artie have to pay for his candy?

A. $2.73
B. $3.40
C. $27.30
D. $0.80

Answer: A

Explanation:
Artie will have to pay $2.73 for his candy. To find the answer, we must multiply the amount of candy Artie is purchasing, 2.1 pounds, by the price per pound, $1.30. When multiplying decimals, we can use the traditional algorithm, as if the decimal points weren't there. When we multiply 130 by 21, we get 2,730. To determine where to place the decimal point, we count the number of digits after each decimal point in each factor. Here, we have one digit after the decimal point in 2.1 and digits after the decimal point in $1.30. That makes for a total of three digits after the decimal points in the factors. Because there are three digits to the right of the decimal points in the factors, we must have three digits after the decimal point in the product, turning 2,730 into 2.730, or $2.73.

Question: 7

Which of the following is equivalent to $5^3 + 18 \div 3$?

A. 21
B. 131
C. $48\frac{2}{3}$
D. 37

Answer: B

Explanation:
Following the order of operations, we must start by finding the value of 5^3, which is equivalent to 5 X 5 X 5, or 125. This simplifies our expression to 125 + 18 ÷ 3. Next, we must solve the division of 18 and 3, which is 6, leaving us with a final expression of 125 + 6. The sum of 125 and 6 is 131, making our solution 131.

Question: 8

Find the value of 100 ÷ (9 + 1) x 2

A. 5
B. 15
C. 20
D. 76

Answer: C

Explanation:
Parentheses must be completed first. Here, 9 + 1 = 10, so we can rewrite our expression as 100 ÷ 10 x 2. When dealing with multiplication and division, we must solve the operations in the order in which they appear, from left to right. Because division appears before multiplication, we must divide 100 by 10 before we multiply by 2. The quotient of 100 and 10 is 10, simplifying our expression to 10 x 2, or 20. Our final answer is 20.

Question: 9

Simplify the expression (10 + 4 X 3) ÷ 2.

A. 22
B. 21
C. 6
D. 11

Answer: D

Explanation:
When there are operations within our parentheses, we must follow the order of operations within the parentheses as well. Because multiplication comes before addition, we must start by finding the product of 4 and 3, which is 12. Next, we add 10 and 12 to get 22. Finally, we can divide 22 by 2 to arrive at our final answer, 11.

Question: 10

A triangle has angles measuring 400, 1000, and 400. Which of the following choices accurately describes the triangle?

A. It is an acute equilateral triangle
B. It is an acute isosceles triangle
C. It is an obtuse isosceles triangle
D. It is an acute isosceles triangle

Answer: C

Explanation:
Any triangle with an angle measuring over 90˚ is considered an obtuse triangle. Because this triangle has an angle measuring 100˚, we must classify it as obtuse. Since we have two 40-degree angles, we know that the sides opposite those angles must be the same length. A triangle with two equivalent sides is described as an isosceles triangle. This triangle must be described as an obtuse isosceles triangle.

Thank You for Trying Our Product

For More Information – Visit link below:

https://www.examsboost.com/

15 USD Discount Coupon Code:

G74JA8UF

FEATURES

- ✓ 90 Days Free Updates
- ✓ Money Back Pass Guarantee
- ✓ Instant Download or Email Attachment
- ✓ 24/7 Live Chat Support
- ✓ PDF file could be used at any Platform
- ✓ 50,000 Happy Customer