Objective 1.1

1. Dana used a rule to make a number pattern. Her rule is to multiply by 2. Which number pattern follows Dana’s rule?

A  4, 6, 9, 10, 12
B  2, 4, 8, 16, 32
C  5, 7, 9, 11, 13
D  1, 3, 6, 9, 12

2. Jim used an addition rule to make this number pattern. 3, 7, 11, 15, 19
Which number pattern could be made using the same rule that Jim used?

A  2, 5, 8, 11, 14
B  4, 8, 12, 16, 20
C  5, 8, 11, 14, 17
D  1, 3, 6, 9, 12

3. A subtraction rule was used to make the pattern of numbers in the table.

31 29 27 25 23  ?  ?

If the pattern continues, what would be the next two numbers?

A  25, 27
B  22, 21
C  21, 19
D  24, 25
4. The pattern shown below shows an increasing number of dots.

If the pattern continues, what would be the next two figures?

A

B

C

D

Objective 1.2a

5. Travis used multiplication and addition to make this number pattern.

What rule could Travis have used for the pattern?

A add 5, then multiply by 2
B multiply by 4, then add 1
C add 3, then multiply by 2
D multiply by 3, then add 1
6. A function machine used a rule to change Robert’s numbers into different numbers. The table shows Robert’s numbers and the function machine’s changed numbers.

<table>
<thead>
<tr>
<th>Robert’s Numbers</th>
<th>Function Machine’s Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

Which rule could the function machine have used to change Robert’s numbers?

A  add 3  
B  subtract 3  
C  add 1  
D  subtract 1

7. This increasing number pattern was made using a rule.

28, 35, 42, 49, 56

Which rule could have been used to make this pattern?

A  add 3  
B  multiply by 3  
C  add 7  
D  multiply by 7
Objective 1.2b

8. Which number sentence could represent the picture above?
   A \(42 - 37 = n\)
   B \(37 + 42 = n\)
   C \(42 + 5 = n\)
   D \(37 - 5 = n\)

9. What value of \(x\) makes this equation true?
   \[x - 11 = 34\]
   A 23
   B 25
   C 43
   D 45
10. The scale below is balanced.

If one triangle is added to the left side, how many circles should be added to the right side to keep the scale balanced?

A 4  
B 3  
C 2  
D 1

Objective 2.1a

11. Which number has a digit in the thousands place that is twice the value of the digit in the tens place?

A 11,985  
B 6,328  
C 28,841  
D 32,121

12. Bridget’s uncle was born in the year 1935. What digit is in the hundreds place in 1935?

A 1  
B 9  
C 3  
D 5
13. The highest city in the world is 12,087 feet above sea level. What is the place value of the 2 in 12,087?

A ten thousands  
B thousands  
C hundreds  
D tens  

Objective 2.1b

14. Wiley Post traveled fifteen thousand, five hundred ninety-six miles. Which shows that distance written as a numeral?

A 1556  
B 1596  
C 15,596  
D 15,956  

15. What is five hundred two and seventy-one hundredths written in numerals?

A 5027.10  
B 527.10  
C 502.71  
D 52.71  

16. The price of a CD player is thirty-nine dollars and ninety-five cents. What is the price of the CD player written as a numeral?

A $3.95  
B $39.95  
C $309.50  
D $399.50
17. Mary-Anne bought a car for twelve thousand, forty-nine dollars. What is this amount of money written as a numeral?

A  $1,249.00  
B  $12,000.49  
C  $12,049.00  
D  $12,490.00

Objective 2.2

18. Which sentence is true?

A  163,406 < 163,511  
B  15,321 > 15,325  
C  7800 = 780  
D  907 > 970

19. Which number has the greatest value?

A  0.45  
B  0.54  
C  4.05  
D  4.50

Objective 2.3a

20. Which point best describes the location of 0.4 on the number line?

A  L  
B  M  
C  N  
D  P
21. Which point best describes the location of $\frac{3}{4}$ on the number line?

A  J  
B  K  
C  L  
D  M  

22. The shaded part of the large rectangle represents a fraction.

Which point on the number line best represents the location of the fraction that is the shaded part of the rectangle?

A  P  
B  Q  
C  R  
D  S
23. This is 1.

What fraction represents the difference shown below?

A \( \frac{9}{8} \)

B \( \frac{7}{8} \)

C \( \frac{4}{8} \)

D \( \frac{3}{8} \)
24. This is 1.

What symbol makes the statement true?

A <
B >
C =
D ≥

25. Mrs. Smith bought 35 dozens of donuts for the youth group. Which is closest to the number of donuts that she bought?

A 370
B 380
C 390
D 400

26. A store received about 300 phone calls last week. At that rate, which of these is a reasonable number of phone calls the store would receive in 16 weeks?

A 2023
B 4124
C 4624
D 6000
27. Debbie rode her bicycle 12 miles every day for five months. There were 153 days in these five months. How many total miles did she ride?

A 60 mi
B 165 mi
C 765 mi
D 1836 mi

28. \[ 54 \div 6 = \]

A 6
B 7
C 8
D 9

29. The fact family below is missing a fact.

\[ 3 \times 8 = 24 \]
\[ 8 \times 3 = 24 \]
\[ 24 \div 8 = 3 \]

Which is the missing fact?

A \[ 24 \div 3 = 8 \]
B \[ 24 \div 4 = 6 \]
C \[ 24 + 3 = 27 \]
D \[ 24 - 4 = 20 \]
30. Which number is both a factor of 12 and a multiple of 2?
   A  0
   B  4
   C  8
   D  10

31. Mrs. Gregg and 26 of her students are going on a field trip. They will be traveling in school vans. If each van can seat 8 passengers, about how many vans will they need?
   A  2
   B  3
   C  4
   D  5

32. Jay cooked a dozen eggs for himself and 3 other family members. If they shared the eggs equally, how many eggs did each person get?
   A  3
   B  4
   C  7
   D  12

33. A movie theater in Oklahoma City has 675 seats arranged in 9 rows in the theater. If each row has the same number of seats, how many seats are in each row?
   A  125
   B  92
   C  87
   D  75
Objective 3.3

34. Which is closest in value to 68 + 23?

A 60 + 23
B 68 + 25
C 70 + 20
D 75 + 25

35. Which of these is a way to use front-end rounding to find the product of the numbers above?

A 120 \times 24
B 12 \times 2
C 15 \times 30
D 150 \times 3

36. Cody rounded to the nearest tens place when estimating the product below.

What shows the expression rounded to the nearest tens place?

A 390 \times 80
B 400 \times 70
C 390 \times 70
D 400 \times 80
Objective 4.1a

37. Which letter below best shows perpendicular segments?

A  T
B  X
C  S
D  N

38. Which best shows parallel lines?

A

\[
\begin{array}{c}
\emode{\downarrow}
\end{array}
\]

B

\[
\begin{array}{c}
\emode{\downarrow}
\end{array}
\]

C

\[
\begin{array}{c}
\emode{\downarrow}
\end{array}
\]

D

\[
\begin{array}{c}
\emode{\downarrow}
\end{array}
\]
This angle is less than 90 degrees. Which angle below is also less than 90 degrees?

A

B

C

D
40.

The coat hanger above forms which kind of angle?

A  straight angle
B  right angle
C  acute angle
D  obtuse angle
Objective 4.3

41. Which picture below shows a slide of the figure from left to right?

A

B

C

D

42. Which best describes the change to the triangular prism from figure 1 to figure 2?

A slide
B reflect
C turn
D shrink
43. Which best represents a rotation of the figure across the line?

A

B

C

D

objective 4.3b

44. Which pair of shapes can be used to make a triangular prism?

A

B

C
45. Which figure could have been made using only equilateral triangles?

A

B

C

D
Objective 4.4a

A ball weighs about 1 pound.

Which of these also weighs about 1 pound?

A

B

C

D
47. A small paperclip weighs about 1 gram.

A textbook weighs about 1 kilogram.

About how much does a quarter weigh?

A  1 g  
B  10 g  
C  1 kg  
D  10 kg
48. Sue measured the height of her classroom door. Which is closest to the height of the door?

A 7 inches  
B 7 feet  
C 7 yards  
D 7 miles

49. Which could be the length of a school hallway?

A 30 centimeters  
B 30 inches  
C 30 meters  
D 30 miles

50. John took a flight from Oklahoma City to Dallas. It lasted about 50 minutes. If he arrived at 10:20 A.M., what time did his plane leave?

A 9:00 A.M.  
B 9:20 A.M.  
C 9:30 A.M.  
D 9:50 A.M.
51. Jack saw the following items while shopping:

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shirts</td>
<td>$16</td>
</tr>
<tr>
<td>Pants</td>
<td>$21</td>
</tr>
<tr>
<td>Shoes</td>
<td>$32</td>
</tr>
<tr>
<td>Jackets</td>
<td>$45</td>
</tr>
</tbody>
</table>

(All prices include tax)

Jack has $80. How much money should he have left after paying for one jacket and one shirt?

A  $19
B  $35
C  $61
D  $64

52. Look at the picture of the receipt below.

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bread</td>
<td>$1.35</td>
</tr>
<tr>
<td>Milk</td>
<td>$2.45</td>
</tr>
<tr>
<td>Chips</td>
<td>$2.19</td>
</tr>
<tr>
<td>Eggs</td>
<td>$3.48</td>
</tr>
<tr>
<td>School supplies</td>
<td>$7.89</td>
</tr>
</tbody>
</table>

Total: $17.36

What is the total cost for the bread and milk?

A  $3.60
B  $3.70
C  $3.80
D  $3.90
Objective 5.1a

53. Five friends recorded how many glasses of milk each drank in a week. They recorded their results in a chart.

<table>
<thead>
<tr>
<th>Name</th>
<th>Number of Glasses of Milk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>🥛🥛🥛🥛🥛</td>
</tr>
<tr>
<td>Mark</td>
<td>🥛🥛🥛🥛🥛elix</td>
</tr>
<tr>
<td>Christa</td>
<td>🥛🥛🥛elix</td>
</tr>
<tr>
<td>Todd</td>
<td>🥛🥛🥛🥛elix</td>
</tr>
<tr>
<td>Angela</td>
<td>🥛🥛elix</td>
</tr>
</tbody>
</table>

Based on the information in the chart, which person had 3 fewer glasses of milk than Jan?

A  Mark  
B  Christa  
C  Todd  
D  Angela

54. The table shows the locations of five different craters.

<table>
<thead>
<tr>
<th>Location</th>
<th>Diameter (kilometers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>1.186</td>
</tr>
<tr>
<td>Mexico</td>
<td>170</td>
</tr>
<tr>
<td>Africa</td>
<td>17</td>
</tr>
<tr>
<td>Australia</td>
<td>0.875</td>
</tr>
<tr>
<td>Canada</td>
<td>13</td>
</tr>
</tbody>
</table>

Based on the information in the table, what is the difference between the diameters of the largest crater and the smallest crater?

A  0.311 km  
B  169.125 km  
C  157 km  
D  1173 km
Objective 5.1b

55. The table below shows temperatures and colors of several types of stars.

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,000</td>
<td>cool white</td>
</tr>
<tr>
<td>3000</td>
<td>red</td>
</tr>
<tr>
<td>6000</td>
<td>yellow</td>
</tr>
<tr>
<td>7000</td>
<td>creamy</td>
</tr>
<tr>
<td>4500</td>
<td>orange</td>
</tr>
</tbody>
</table>

Which graph best represents the information in the table?

A

B

C

D
56. The students at LeMay Elementary were asked to name their favorite sport. The circle graph shows the percentage of the students who chose each sport.

![Circle graph showing favorite sports]

Which two sports did almost half of the students choose as their favorite?

A  baseball and volleyball
B  basketball and tennis
C  volleyball and soccer
D  tennis and baseball
Answer sheet

1. B
2. B
3. C
4. D
5. D
6. A
7. C
8. A
9. D
10. C
11. C
12. B
13. B
14. C
15. C
16. B
17. C
18. A
19. D
20. B
21. D
22. C
23. D
24. A
25. D
26. C
27. D
28. D
29. A
30. B
31. C
32. A
33. D
34. C
35. B
36. B
37. A
38. C
39. D
40. D
41. B
42. C
43. B
44. C
45. B
46. D
47. B
48. B
49. C
50. C
51. A
52. C
53. B
54. B
55. D
56. A