Directions:

On the following pages are multiple-choice questions for the Grade 6 Practice Test, a practice opportunity for the *Nebraska State Accountability–Mathematics (NeSA–M)*.

Each question will ask you to select an answer from among four choices.

For all questions:

- Read each question carefully and choose the best answer.
- You may use scratch paper to solve the problems.
- The Mathematics Reference Sheet is provided in the back of the test booklet. You may refer to this page any time during the test.
- You may not use a calculator on this test.
- Be sure to answer ALL the questions.

Only one of the answers provided is the correct response.
1. Krista bought jeans for $27.50, a shirt for $11.75, and shoes for $35.25. Which expression shows how to estimate the total amount Krista spent?
   A. $20 + $10 + $30
   B. $20 + $20 + $30
   C. $30 + $10 + $40
   D. $30 + $20 + $40

2. A plant container in the shape of a rectangular prism measures 12 inches by 9 inches by 8 inches. How much soil is needed to fill the plant container?
   A. 684 in.³
   B. 784 in.³
   C. 854 in.³
   D. 864 in.³

3. Which value’s prime factorization is \(2 \cdot 3^2 \cdot 5\)?
   A. 13
   B. 30
   C. 60
   D. 90

4. Ben, Tracey, and Tran spent a total of $15 to go skating. They each rented skates at the park for \(n\) dollars. Which equation represents the amount each person spent?
   A. \(2n = 15\)
   B. \(3n = 15\)
   C. \(15n = 2\)
   D. \(15n = 3\)
5. What is the value of \( \frac{x}{3} \) when \( x = 42 \)?
   A. 14
   B. 39
   C. 45
   D. 126

6. Which expression represents 16 less than \( m \)?
   A. \( 16 + m \)
   B. \( 16 - m \)
   C. \( m ÷ 16 \)
   D. \( m - 16 \)

7. Use the equation below to answer the question.

\[
12 + x = 16 \frac{1}{4}
\]

What value of \( x \) correctly completes the equation?
   A. \( 3 \frac{3}{4} \)
   B. \( 4 \frac{1}{4} \)
   C. \( 27 \frac{3}{4} \)
   D. \( 28 \frac{1}{4} \)
8. Maria used 64 feet (ft) of fencing to construct a square dog pen. How long is each side of the pen?
   A. 8 ft
   B. 12 ft
   C. 16 ft
   D. 32 ft

9. Which step explains how to find the value of \( y \) in \( y + 5 = 13 \)?
   A. Add 5 to both sides.
   B. Subtract 5 from both sides.
   C. Multiply both sides by 5.
   D. Divide both sides by 5.

10. What is the value of \( 3 + 4 \cdot 5 - 1 \)?
    A. 11
    B. 22
    C. 34
    D. 59

11. Ben’s quiz scores are 80, 90, 95, 80, and 100. What is his median quiz score?
    A. 80
    B. 90
    C. 95
    D. 100
12. Which statement is true?
   A. –14 > –28
   B. –25 > 1
   C. –12 > –10
   D. –15 > 0

13. Use the table below to answer the question.

<table>
<thead>
<tr>
<th>Heads</th>
<th>Tails</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>20</td>
</tr>
</tbody>
</table>

   Tommy flipped a coin 50 times and recorded the results in a table. What is the experimental probability of the coin landing heads-up?

   A. \( \frac{20}{50} \)
   B. \( \frac{25}{50} \)
   C. \( \frac{30}{50} \)
   D. \( \frac{20}{30} \)

14. What is another way to write 1,064?

   A. \((1 \times 10^3) + (6 \times 10^1) + (4 \times 10^0)\)
   B. \((1 \times 10^3) + (6 \times 10^1) + (4 \times 10^0)\)
   C. \((1 \times 10^3) + (6 \times 10^2) + (4 \times 10^1)\)
   D. \((1 \times 10^4) + (6 \times 10^2) + (4 \times 10^1)\)
15. **Use the picture to answer the question.**

Which solid figure does the net represent?

A. cone  
B. cylinder  
C. triangular prism  
D. rectangular prism

16. **Use the coordinate grid below to answer the question.**

Which point is described by the ordered pair (3, 4)?

A. point R  
B. point S  
C. point T  
D. point U
17. A middle school purchased 600 journals. The company shipped 24 journals per box. Which expression shows how to find the number of boxes used to ship the 600 journals?

A. $600 + 24$
B. $600 - 24$
C. $600 \times 24$
D. $600 \div 24$

18. Four friends purchase a video game for $56.28. The total cost for the game is divided equally between the four friends. How much does each friend pay?

A. $14.00$
B. $14.07$
C. $14.08$
D. $14.70$

19. Susie is $62\frac{1}{2}$ inches tall at the end of the year. She grew $\frac{3}{4}$ of an inch during the school year. How tall was Susie at the beginning of the year?

A. $61\frac{1}{4}$ inches
B. $61\frac{1}{2}$ inches
C. $61\frac{3}{4}$ inches
D. $62\frac{1}{4}$ inches
20. **Use the spinner below to answer the question.**

![Spinner Diagram]

Which color has a theoretical probability of $\frac{1}{4}$?

A. red  
B. blue  
C. yellow  
D. green

21. **Use the table below to answer the question.**

<table>
<thead>
<tr>
<th>The Burger Spot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamburger $2$</td>
</tr>
<tr>
<td>French Fries $1.50$</td>
</tr>
<tr>
<td>Veggie Burger $3$</td>
</tr>
<tr>
<td>Milk Shake $1.25$</td>
</tr>
<tr>
<td>Cheeseburger $3$</td>
</tr>
<tr>
<td>Drink $0.75$</td>
</tr>
</tbody>
</table>

Tran and Stacy go to The Burger Spot for lunch. Each person ordered one cheeseburger, one order of French fries, and one drink. Tran also ordered a hamburger. Which expression represents the total cost of their order?

A. $2(3 + 2 + 1.50 + 0.75)$  
B. $2(3 + 1.50 + 0.75)$  
C. $3 + 2 + 1.50 + 0.75$  
D. $2(3 + 1.50 + 0.75) + 2$
22. Which value correctly completes the number sentence 15.3 – 6.74 = ___?
   A. 8.54  
   B. 8.56  
   C. 8.64  
   D. 8.66

23. Use the line graph to answer the question below.

   Average Monthly Temperatures for Chicago and Dallas

   ![Graph showing monthly temperatures for Chicago and Dallas]

   The line graph shows the average monthly temperatures for Chicago and Dallas for six months. Which two months show an average temperature less than 50°F for both cities?
   A. 5 and 6  
   B. 3 and 4  
   C. 2 and 3  
   D. 1 and 2
24. Jaivon built a rectangular fence along the border of a new playground. He used 48 feet of fencing. One side of the playground is 10 feet long. What is the area of the playground?

A. 96 square feet
B. 140 square feet
C. 192 square feet
D. 320 square feet
### 3 – Dimensional Shape Volume

<table>
<thead>
<tr>
<th>Shape</th>
<th>Volume Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rectangular Prism</td>
<td>( V = lwh = Bh )</td>
</tr>
</tbody>
</table>

### Key

- \( b = \text{base} \)
- \( l = \text{length} \)
- \( h = \text{height} \)
- \( w = \text{width} \)
- \( B = \text{area of base} \)
- \( s = \text{side length} \)

### 3D Shapes Formulas

<table>
<thead>
<tr>
<th>Shape</th>
<th>Area Formula</th>
<th>Perimeter Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triangle</td>
<td>( A = \frac{1}{2} bh )</td>
<td></td>
</tr>
<tr>
<td>Rectangle</td>
<td>( A = lw )</td>
<td>( P = 2l + 2w )</td>
</tr>
<tr>
<td>Parallelogram</td>
<td>( A = bh )</td>
<td></td>
</tr>
<tr>
<td>Square</td>
<td>( A = s \times s )</td>
<td></td>
</tr>
</tbody>
</table>

### Conversions – Length

<table>
<thead>
<tr>
<th>Standard Units</th>
<th>Metric Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 yard (yd) = 3 feet (ft) = 36 inches (in.)</td>
<td>1 meter (m) = 100 centimeters (cm)</td>
</tr>
<tr>
<td>1 mile (mi) = 1,760 yards (yd) = 5,280 feet (ft)</td>
<td>1 meter (m) = 1,000 millimeters (mm)</td>
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<tr>
<td></td>
<td>1 kilometer (km) = 1,000 meters (m)</td>
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</tbody>
</table>

### Conversions – Volume

<table>
<thead>
<tr>
<th>Volume</th>
<th>Conversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cup = 8 fluid ounces (fl oz)</td>
<td>1 liter (l) = 1,000 milliliters (ml)</td>
</tr>
<tr>
<td>1 pint (pt) = 2 cups</td>
<td>1 liter (l) = 1,000 cubic centimeters (cu. cm)</td>
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<tr>
<td>1 quart (qt) = 2 pints (pt)</td>
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<tr>
<td>1 gallon (gal.) = 4 quarts (qt)</td>
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### Conversions – Weight/Mass

<table>
<thead>
<tr>
<th>Weight/Mass</th>
<th>Conversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pound (lb) = 16 ounces (oz)</td>
<td>1 gram (g) = 1,000 milligrams (mg)</td>
</tr>
<tr>
<td>1 ton = 2,000 pounds (lb)</td>
<td>1 kilogram (kg) = 1,000 grams (g)</td>
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<td>B</td>
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