Graphing 6th Grade Chapter Questions

1. What is the Cartesian (Coordinate) plane?
2. How is the Cartesian plane divided?
3. How are ordered pairs graphed?

Cartesian Plane

Classwork

1. Label the quadrants, the origin, and the x-axis and y-axis.

2. In what quadrant or axis is each point located?

   A   D
   B   E
   C   F
Homework

3. Label the quadrants, the origin, and the x-axis and y-axis.

4. In what quadrant is each point located?

Graphing Ordered Pairs
Classwork

5. Plot a point and label it with the letter in each location indicated.

A Quadrant III
B Quadrant I
C Quadrant II
D Quadrant IV
E Origin
F x-axis
G y-axis

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6. Write the coordinates of each point on the graph.

Label the point in quadrant I, \(A\) ____
Label the point in quadrant IV, \(B\) ____
Label the point in quadrant II, \(C\) ____
Label the point on the \(x\) – axis, \(D\) ____
What is the point that is not labeled? ____

7. Plot and label the following points:

\(A\) (2, 1.5) \(\quad\) \(F\) (0, 4)
\(B\) (1, 2) \(\quad\) \(G\) (4, 0.25)
\(C\) (-4, -2 1/2) \(\quad\) \(H\) (-2, 0)
\(D\) (-3, 1) \(\quad\) \(I\) (0, - 3)
\(E\) (5, -2) \(\quad\) \(J\) (3, - 3)

8. Name the coordinates of each point.

\(A\) ____ \(\quad\) \(D\) ____
\(B\) ____ \(\quad\) \(E\) ____
\(C\) ____ \(\quad\) \(F\) ____
9. Reflect each of the coordinates (in the previous problem) over the x and y axis. Write the new coordinates below.

<table>
<thead>
<tr>
<th>Reflect over x</th>
<th>Reflect over y</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
</tr>
</tbody>
</table>

**Homework**

10. Plot a point and label it with the letter in each location indicated.

- A Quadrant I
- B Quadrant III
- C Quadrant IV
- D Quadrant II
- E Origin
- F y-axis
- G x-axis

11. Write the coordinates of each point on the graph.

- Label the point in quadrant I, A _____
- Label the points in quadrant IV, B & C _____
- Label the points in quadrant II, E & F _____
- Label the point in quadrant III, D _____
- Label the origin, O _____
12. Plot and label the following points:

\[
\begin{array}{c|c}
A (-2, 1.25) & F (0, 1) \\
B (2, 2) & G (1, 0.5) \\
C (4, -2 \frac{1}{2}) & H (0, -3) \\
D (3, -1) & I (-3, 0) \\
E (-5, -2) & J (2, -2)
\end{array}
\]

13. Name the coordinates of each point.

\[
\begin{array}{c|c}
A & D \\
B & E \\
C & F
\end{array}
\]

14. Reflect each of the above coordinates (in the previous problem) over the x and y axis. Write the new coordinates below.

\[
\begin{array}{c|c}
\text{Reflect over } x & \text{Reflect over } y \\
A & \_ \_ \\
B & \_ \_ \\
C & \_ \_ \\
D & \_ \_ \\
E & \_ \_ \\
F & \_ \_ \\
\end{array}
\]
**Cartesian Plane Applications**

**Classwork**

What is the distance between the two graphed points?
15.

Find the distance between each pair of points.

16. (20, -10), (20, 6)
17. (-3, 17), (15 1/4, 17)
18. (5, 1), (5, -6.5)
19. (4, 6), (4, -3)
20. (6, -3), (6, -7)

Use the following map to answer questions the next three questions.
21. Each unit on the graph represents \( \frac{3}{4} \) mile. What is the total distance driven, if Sebastian drives from his house, to Ulysses’ house and then to Rodger’s house?

22. If the town library is at the map origin, describe the trip Tara would have to make to get to the library.

23. What quadrant is Sebastian’s house in?

Homework

What is the distance between the two graphed points?

24. 

Find the distance between each pair of points.

25. (6,2), (0,2)
26. (-3,-1), (-3,0.5)
27. (-2,3), (-2,7)
28. (-7 1/2, 8), (2,8)
29. (6,-2), (-8, -2)
30. If each unit on the graph represents \( \frac{2}{3} \) mile, what is the distance from Cutler to Dixon?

31. Describe the trip a traveler would have to make to get from Edison to Brookdale.

32. When asked what quadrant Fischer Lake is in, Sammy says it is in Quadrant II. George says that answer is not correct. Who do you agree with? Explain your answer.
Graphing Review Problems

1. A point that lies on the y axis between quadrants I and II could have the following for the x and y-coordinates:
   a. (0, 5)
   b. (5, 0)
   c. (0, -5)
   d. (-5, 0)

2. A point that lies on the x axis between quadrants I and IV could have the following for the x and y-coordinates:
   a. (0, 7)
   b. (7, 0)
   c. (0, -7)
   d. (-7, 0)

Use this Cartesian plane to identify the coordinates for each point for #3 - #5

3. Point A
   a. (-2,2)
   b. (0,2)
   c. (2, 2)
   d. (2,0)

4. Point B
   a. (4, 3)
   b. (-4, 3)
   c. (4, -3)
   d. (3, 4)

5. Point C
   a. (3, 2)
   b. (-3, -2)
   c. (-3, 2)
   d. (3, -2)
Find the distance between the two points for #6 - #7

6. (-5, 3.5) (-5, 7)
   a. 4.5 units
   b. 4 units
   c. 3 units
   d. 3.5 units

7. (-7, 5) (-7, -4)
   a. 1 unit
   b. 9 units
   c. 12 units
   d. 3 units

8. Which of the following points would be located in the first quadrant?
   a. (-3, -1)
   b. (3, 1)
   c. (3, -1)
   d. (-3, 1)

9. Which of the following points would be located in the fourth quadrant?
   a. (-4, 5)
   b. (-4, -5)
   c. (4, 5)
   d. (4, -5)

10. A sunken ship is 150 feet below sea level. Which statement is expressed correctly?
    a. 150 feet below sea level can be represented by the integer -150.
    b. The depth of the sunken ship is -150 feet below sea level.
    c. Both A & B

11. The temperature dropped by 10°F when the sun went down. Which statement is expressed correctly?
    a. The integer -10 represents the change in temperature in degrees Fahrenheit.
    b. The temperature decreased by 10°F.
    c. Both A & B

Number System Short Constructed Response Questions

12. Explain how to plot (-3 ½, -6) on the coordinate plane.
13. Label the quadrants, x-axis, y-axis, and origin.

14. Plot the following points on the coordinate grid:

- A (0, 4)
- B (2 1/4, -3)
- C (-4, 0)
- D (-2, -3.25)
- E (-4, 4)
- F (1.5, -2)
15. Each unit on the coordinate grid represents 1 kilometer.
   a. Plot the following cities on the county map: Smithville \((-3.5, 2)\), Horton \((4, -1.5)\),
      Marina \((2, 2)\), Fair Hills \((-3, -1 1/2)\).
   b. What is the distance in kilometers from Smithville to Marina?
   c. What is the distance in kilometers from Horton to Fair Hills?
16. Below is a map of Lake County. Use the map to answer the following questions.

a. If each unit on the graph represents 1/3 mile, what is the distance from Cutler to Dixon?

b. Describe the trip a traveler would have to make to get from Brookdale to Edison.

c. Marcus thinks that the train tracks are in Quadrant IV. Is he correct? Explain your answer.
6th Grade Applications of Equations Chapter Questions

1. Explain the relationship between dependent and independent variables.
2. Identify examples of dependent and independent variables in the real world.
3. How can equations, tables, and graphs be used to represent real-life scenarios?
4. Why do we use equations, tables, and graphs to represent real-life scenarios?
Chapter Problems

Dependent and Independent Variables

Classwork

Identify the independent and the dependent variable in each scenario.

1) The older John gets, the taller he is.

2) The more gallons of milk I have, the more cups of milk I have.

3) In the United States House of representatives, the number of Representatives from a state is calculated based on its population.

4) The number of seats in a movie theater determines how many tickets can be sold.

5) As a plane descends, the more time that passes, the lower the plane’s altitude is.

6) It costs $0.99 for a music download. The more music I download, the more money I spend.

Homework

Identify the independent and the dependent variable in each scenario.

7) The more tickets I sell, the more money I have.

8) Judah brings reusable shopping bags from home whenever he goes to the grocery store. The number of bags he brings is based on how many products are on his shopping list.

9) At a deli counter, the price of a customer’s order is based on its weight.

10) Vera and Elizabeth are going hiking and are trying to figure out how many snacks they should bring with them on the hike. The longer they plan to hike, the more snacks they should bring.

11) Amelia is making mushroom tarts for a party. The number of tarts she can make will be determined by how many mushrooms are in the fridge.

12) Taylor’s dad is building a case for his trophies. The number of trophies will determine how many shelves the case will have.
Equations and Tables

Classwork

13) The table shows the relationship between the age of a plant in weeks, \( w \), and the height of the plant in cm, \( h \). Write an equation to represent this relationship.

<table>
<thead>
<tr>
<th>( w )</th>
<th>( h )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>3</td>
<td>36</td>
</tr>
<tr>
<td>4</td>
<td>48</td>
</tr>
</tbody>
</table>

14) Predict the plant's height in cm when it is 8 weeks old.

15) The table shows the relationship between the number of cups, \( c \), and the number of gallons, \( g \). Write an equation to represent this relationship.

<table>
<thead>
<tr>
<th>( g )</th>
<th>( c )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>48</td>
</tr>
<tr>
<td>4</td>
<td>64</td>
</tr>
</tbody>
</table>

16) How many gallons will 128 cups make?

17) The following table represents the equation \( m = 3a \). Fill in the missing values.

<table>
<thead>
<tr>
<th>( a )</th>
<th>( m )</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>
18) Hillary, \( h \), is 15 years older than Gavin, \( g \). Write an equation to represent this situation. Then complete the table.

\[
\begin{array}{c|c}
\text{g} & \text{h} \\
15 & \text{ } \\
30 & \text{ } \\
50 & 60 \\
\end{array}
\]

Homework

19) The table shows the relationship between the pounds of dough prepared, \( p \), and the number of hours worked, \( h \). Write an equation to represent this relationship.

\[
\begin{array}{c|c}
\text{h} & \text{p} \\
9 & 27 \\
10 & 30 \\
11 & 33 \\
12 & 36 \\
\end{array}
\]

20) Predict how many pounds of dough will be prepared after 24 hours.

21) The table shows the relationship between the minutes Vanessa spends walking, \( m \), and the number of laps around the track she completes, \( c \). Write an equation to represent this relationship.

\[
\begin{array}{c|c}
\text{c} & \text{m} \\
3 & 18 \\
5 & 30 \\
6 & 36 \\
8 & 48 \\
\end{array}
\]

22) If she keeps walking at this rate, how many laps will she have completed after 72 minutes?
23) The following table represents the equation \( y = x - 4 \). Fill in the missing values.

<table>
<thead>
<tr>
<th>( x )</th>
<th>( y )</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

24) Ella's birthday party costs $3 for every guest she invites. Write an equation that shows the relationship between the guests, \( g \), and the cost, \( c \). Then complete the table.

<table>
<thead>
<tr>
<th>( g )</th>
<th>( c )</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>
34. Each bag contains 20 lollipops. Write an equation that shows the relationship between the number of bags, \( b \), and the number of lollipops, \( n \). Complete the table to represent this scenario. Then graph the function. Be sure to label your table and graph.

\[ n = 20b \]

<table>
<thead>
<tr>
<th>( b )</th>
<th>( n )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unit Review

Dependent and Independent Variables Multiple Choice Questions

1. On your bike, you can travel 6 miles per hour. Which variable is independent?
   a. distance traveled
   b. speed of the bike
   c. number of hours you ride

2. At the salad bar, the grocery store charges $5.99 for each half pound you buy. Which variable is dependent?
   a. weight of the salad
   b. total cost of the salad
   c. cost of the salad per half pound

3. The more time that I spend reading, the more pages I have read. Which variable is independent?
   a. number of pages read
   b. time spent reading
   c. number of pages I have to read
4. Mason makes $20 for each lawn he mows. Which equation represents the money he makes, \( d \), in dollars that Mason makes after he mows \( n \) lawns?
   a. \( d = 20n \)
   b. \( n = 20d \)
   c. \( d = 20 + n \)
   d. \( n = 20 + d \)

5. A boat travels at the rate of 25 miles, \( m \), per hour, \( h \). Which equation represents this scenario?
   a. \( m = 25h \)
   b. \( m = 12 + h \)
   c. \( m = 12 - h \)
   d. \( m = h + 12 \)

6. Which table represents the scenario in the previous problem?
   a. \[
   \begin{array}{c|c|c|c}
   h & 2 & 4 & 6 \\
   m & 5 & 10 & 12 \\
   \end{array}
   \]
   b. \[
   \begin{array}{c|c|c|c}
   h & 1 & 2 & 3 \\
   m & 25 & 50 & 75 \\
   \end{array}
   \]
   c. \[
   \begin{array}{c|c|c|c|c}
   m & 25 & 50 & 60 & 105 \\
   h & 1 & 2 & 3 & 4 \\
   \end{array}
   \]
   d. \[
   \begin{array}{c|c|c|c|c}
   m & 1 & 2 & 3 & 4 \\
   h & 25 & 50 & 75 & 100 \\
   \end{array}
   \]

7. Which table represents the equation \( g = 30f \)?
   a. \[
   \begin{array}{c|c|c|c|c}
   g & 2 & 4 & 6 & 8 \\
   f & 6 & 12 & 18 & 24 \\
   \end{array}
   \]
   b. \[
   \begin{array}{c|c|c|c|c}
   f & 2 & 4 & 6 & 8 \\
   g & 6 & 12 & 18 & 32 \\
   \end{array}
   \]
   c. \[
   \begin{array}{c|c|c|c|c}
   g & 1 & 2 & 3 & 4 \\
   f & 30 & 60 & 90 & 120 \\
   \end{array}
   \]
   d. \[
   \begin{array}{c|c|c|c|c}
   f & 1 & 2 & 3 & 4 \\
   g & 30 & 60 & 90 & 120 \\
   \end{array}
   \]
8. It takes Ryan 6.5 minutes to run a mile. Let $m$ represent the number of minutes and $d$ represent the number miles ran. What is the missing value in the table?

<table>
<thead>
<tr>
<th>$m$</th>
<th>6.5</th>
<th>13</th>
<th>26</th>
</tr>
</thead>
<tbody>
<tr>
<td>$d$</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

a. 3  
b. 15.5  
c. 15  
d. 19.5

9. Which equation represents the function shown in the table?

<table>
<thead>
<tr>
<th>$x$</th>
<th>8</th>
<th>10</th>
<th>12</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>$y$</td>
<td>12</td>
<td>14</td>
<td>16</td>
<td>18</td>
</tr>
</tbody>
</table>

a. $y = 2x$  
b. $y = x + 2$  
c. $y = x - 4$  
d. $y = x + 4$

10. Which scenario does the graph represent?

a. Miranda earns $30 per hour  
b. The temperature increased by 20° per hour  
c. Amy ran a mile every 15 minutes  
d. Rob folds 10 napkin every minute

11. Sarah wants to graph the function represented by the table. Which ordered pair is a point on the graph of the function?

<table>
<thead>
<tr>
<th>$x$</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>$y$</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>16</td>
</tr>
</tbody>
</table>

a. (3, 4)  
b. (3, 6)  
c. (12, 9)  
d. (16, 12)
12. A movie theater charges $8 for all large containers of popcorn. Jeffrey graphs the function that gives the total cost, \( y \), in dollars to buy \( x \) containers of popcorn. Which ordered pair is a point on the graph of the function?
   a. (2, 10)
   b. (16, 2)
   c. (4, 32)
   d. (8,1)

13. At the farm, each fenced pen holds 5 cows. What variable could be used to calculate the total number of cows on the farm?
   a. \( c \), the number of cows
   b. \( p \), the number of pens
   c. \( v \), the number of visitors at the farm
   d. \( b \), the bales of hay to feed the cows

14. A cell phone provider charges $0.15 for each text message sent and received. Which variable could be used to calculate the total amount you will be charged for your text messages?
   a. \( s \), the number of messages sent
   b. \( a \), the number of messages sent and received
   c. \( r \), the number of messages received
   d. \( m \), the number of minutes used

15. Adrien earns $9.25 per hour working at a shoe store. If Adrien earned $74 last week, which equation would be used to determine \( h \), the number of hours she worked last week?
   a. \( 9.25 = 74 - h \)
   b. \( 74 = 9.25 + h \)
   c. \( 9.25 = 74 + h \)
   d. \( 74 = 9.25h \)
Graph the data in the table. Determine whether the relationship is a linear function.

1. Input: 1 2 3 4 5
   Output: 5 10 15 20 25

2. Input: 10 20 30 40 50
   Output: 200 400 600 800 1000

3. Input: 3 4 5 6 7
   Output: 6 7 8 9 10


Make a table and graph each function. Use x-values of 0, 1, 2, 3 and 4.

4. \( y = x + 1 \)

5. \( y = 2x \)

6. \( y = \frac{x}{2} + 1 \)

7. A parking garage charges $3.50 per hour to park. The function rule: \( c = 3.5h \) shows how the number of hours \( h \) relates to the parking charge \( c \). Graph the function.
1. Which integer represents a loss of 10 yards in a football game?
   a. -20
   b. 10
   c. -10
   d. 20

2. \( \frac{3}{4} \times \frac{4}{6} = ? \)
   a. \( \frac{1}{2} \)
   b. \( \frac{7}{10} \)
   c. \( \frac{1}{8} \)
   d. \( \frac{1}{5} \)

3. A lighting company is installing lights in an office. They want to install 595 lights. If they break it up into 17 equal rows of lights, how many lights would be in each row?
   a. 35
   b. 40
   c. 45
   d. 30

4. 127.55 - 48.05 = ___
   a. 80.5
   b. 79.5
   c. 7.95
   d. 8.95

5. What are the coordinates for point a?
   a. (8, 5)
   b. (5, 8)
   c. (5, 1)
   d. (1, 5)
PRE-UNIT FORMATIVE ASSESSMENT
Unit 2: Expressions and Equations

1. Which of the following number patterns uses the rule: "Each number in the pattern is twice the previous number."
   a. 7, 9, 11, 13, ...
   b. 6, 12, 24, 36, ...
   c. 5, 10, 20, 40, ...
   d. 4, 12, 24, 36, ...

2. A number pattern was created by dividing the previous term by 4. If the starting value for the pattern was 512, which of the following shows the resulting pattern?
   a. 512, 128, 64, 8...
   b. 512, 128, 64, 4...
   c. 512, 128, 32, 4...
   d. 512, 128, 32, 8...

3. Consider the two patterns described below.

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Rule</th>
<th>Starting Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>Multiply by 2</td>
<td>1</td>
</tr>
<tr>
<td>K</td>
<td>Add 6</td>
<td>0</td>
</tr>
</tbody>
</table>

Which of the following shows the two patterns?

A. | Pattern | Term 1 | Term 2 | Term 3 | Term 4 | Term 5 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>K</td>
<td>1</td>
<td>6</td>
<td>12</td>
<td>18</td>
<td>24</td>
</tr>
</tbody>
</table>

B. | Pattern | Term 1 | Term 2 | Term 3 | Term 4 | Term 5 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>K</td>
<td>0</td>
<td>6</td>
<td>36</td>
<td>216</td>
<td>1,296</td>
</tr>
</tbody>
</table>

C. | Pattern | Term 1 | Term 2 | Term 3 | Term 4 | Term 5 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>K</td>
<td>0</td>
<td>6</td>
<td>12</td>
<td>18</td>
<td>24</td>
</tr>
</tbody>
</table>

D. | Pattern | Term 1 | Term 2 | Term 3 | Term 4 | Term 5 |
<table>
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</thead>
<tbody>
<tr>
<td>J</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>K</td>
<td>1</td>
<td>6</td>
<td>12</td>
<td>18</td>
<td>24</td>
</tr>
</tbody>
</table>
6. Which of the following expressions matches the statement: “Divide 21 by 3. Then, add 5.”
   a. $21 + 3 + 5$
   b. $21 + 5 + 3$
   c. $3 + 21 + 5$
   d. $21 + (3 + 5)$

7. Use the correct order of operations to solve the problem below.

   $11 - 3 \times 2 + 1$

   a. 2
   b. 7
   c. 4
   d. 6

8. Use the correct order of operations to solve the problem below.

   $18 - (2 + 6) - 20 \div 4$

   a. 2
   b. 5
   c. 15
   d. 7

9. Which of the following expressions matches the statement: “Multiply 3 and 7. Then, add 10.”
   a. $3 \times 7 + 10$
   b. $3 \times (7 + 10)$
   c. $3 \times 10 + 7$
   d. $(3 + 7) \times 10$

10. Simplify the following expression.

    $98 - 4[18 - (3 + 4)]$

    a. 30
    b. -2
    c. 22
    d. 54
1. At Central High School, there are 48 football players and 20 cheerleaders. What is the ratio of cheerleaders to football players?
   a. 48 : 20
   b. 20 : 48
   c. 48 : 1
   d. 20 : 1

2. Susie has a bag with 9 hair pins, 7 pencils, 2 snacks, and 4 books. What is the ratio of books to pencils?
   a. 4 : 7
   b. 7 : 4
   c. 9 : 2
   d. 2 : 4

3. Eliza is a chef at a restaurant. She is making spaghetti sauce and put 14 tomatoes and 4 onions in the pot. Which of the following could be the ratio of tomatoes to onions in the pot?
   a. 2 : 7
   b. 4 : 1
   c. 1 : 4
   d. 7 : 2

4. Curtis decided to go on a road trip to Canada. On the first day of his trip, he drove for 10 hours and traveled 600 miles. At what rate did he travel on the first day, in miles per hour?
   a. 61 miles per hour
   b. 60 miles per hour
   c. 59 miles per hour
   d. 57 miles per hour

5. Vince worked 630 hours in 15 weeks. At what rate did he work in hours per week?
   a. 43 hours per week
   b. 41 hours per week
   c. 44 hours per week
   d. 42 hours per week
<table>
<thead>
<tr>
<th><strong>MONDAY</strong></th>
<th><strong>Date</strong></th>
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</thead>
<tbody>
<tr>
<td>1. What is the time?</td>
<td><img src="clock-image" alt="Clock" /></td>
</tr>
<tr>
<td>2. $7 + 8 =$</td>
<td>15</td>
</tr>
<tr>
<td>3. There are ___ faces on a cone.</td>
<td></td>
</tr>
<tr>
<td>4. Round 8.9 (nearest whole).</td>
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<tr>
<td>5. $9 + 7 + 7 =$</td>
<td></td>
</tr>
<tr>
<td>6. (Roman numeral) LXIX =</td>
<td></td>
</tr>
<tr>
<td>7. $3\frac{1}{2} =$ (Write as an improper fraction.)</td>
<td></td>
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<tr>
<td>8. If the date is January 1, what was the date 8 days prior?</td>
<td></td>
</tr>
<tr>
<td>9. Mark to show as an equilateral triangle.</td>
<td><img src="triangle-image" alt="Equilateral Triangle" /></td>
</tr>
<tr>
<td>10. 3, 8, 13, 18,</td>
<td></td>
</tr>
<tr>
<td>11. $\frac{5}{3} =$ (Write as a mixed number.)</td>
<td></td>
</tr>
<tr>
<td>12. $0.3 &gt; 0.2 &gt; 0.1$ □ true □ false</td>
<td></td>
</tr>
<tr>
<td>13. $8^2 =$</td>
<td></td>
</tr>
<tr>
<td>14. 0101 hours = a.m./p.m.</td>
<td></td>
</tr>
<tr>
<td>15. Write the numeral thirty thousand one hundred eleven.</td>
<td></td>
</tr>
<tr>
<td>16. $50.00 - $30.50 =</td>
<td></td>
</tr>
<tr>
<td>17. Show as $\frac{1}{4}$ turn counterclockwise.</td>
<td><img src="clockwise-turn-image" alt="Clockwise Turn" /></td>
</tr>
<tr>
<td>18. $7 \div 100 =$</td>
<td></td>
</tr>
<tr>
<td>19. 8.1 m = ___ mm</td>
<td></td>
</tr>
<tr>
<td>20. Which is heavier: 1 kg or 950 g?</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TUESDAY</strong></th>
<th><strong>Date</strong></th>
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</thead>
<tbody>
<tr>
<td>1. What is the time?</td>
<td><img src="clock-image" alt="Clock" /></td>
</tr>
<tr>
<td>2. $\frac{8}{3} =$ (Write as a mixed number.)</td>
<td></td>
</tr>
<tr>
<td>3. There are ___ edges on a triangular prism.</td>
<td></td>
</tr>
<tr>
<td>4. Round 11.3 (nearest whole).</td>
<td></td>
</tr>
<tr>
<td>5. $4 + 3 + 8 =$</td>
<td></td>
</tr>
<tr>
<td>6. $0.8 &gt; 0.10$ □ true □ false</td>
<td></td>
</tr>
<tr>
<td>7. (Roman numeral) LXXIX =</td>
<td></td>
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<tr>
<td>8. Draw a horizontal line.</td>
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<tr>
<td>9. Write the numeral forty thousand one hundred one.</td>
<td></td>
</tr>
<tr>
<td>10. $71 - 8 =$</td>
<td></td>
</tr>
<tr>
<td>11. $44 \div 9 =$</td>
<td></td>
</tr>
<tr>
<td>12. 0.6, 0.7, 0.8, 0.9,</td>
<td></td>
</tr>
<tr>
<td>13. If the date is August 8, what was the date 8 days prior?</td>
<td></td>
</tr>
<tr>
<td>14. $4 \div 100 =$</td>
<td></td>
</tr>
<tr>
<td>15. Show as a $\frac{1}{2}$ turn clockwise.</td>
<td><img src="clockwise-turn-image" alt="Clockwise Turn" /></td>
</tr>
<tr>
<td>16. $50.00 - $31.50 =</td>
<td></td>
</tr>
<tr>
<td>17. $4\frac{1}{5} =$ (Write as an improper fraction.)</td>
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<tr>
<td>18. 0010 hours = a.m./p.m.</td>
<td></td>
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<tr>
<td>19. $7 + 6 =$</td>
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</tr>
<tr>
<td>20. Which is the longest: 2 m, 200 cm, or 2.05 m?</td>
<td></td>
</tr>
</tbody>
</table>
1. What is the time?

2. $8^2 =

3. Is 3 km or 2,900 m longer?

4. $\frac{1}{2} > \frac{1}{3} > \frac{1}{4}$  □ true □ false

5. This is a

6. How many faces are on the shape above?

7. $9 + 8 + 9 =

8. $91 - 7 =

9. $2, 22, 222, 2,222,

10. $1.00 - 0.25 =

11. (Roman numeral) LXX =

12. $3 \overline{100} =

13. $6700 \text{ mm} = \text{ m}

14. $37 \div 9 = \text{ r}

15. Write the numeral seventy thousand seven hundred seventeen.

16. Show as a $\frac{3}{4}$ turn clockwise.

17. $50.00 - 33.50 =

18. If the date is September 7, what was the date 9 days ago?

19. $\frac{4}{9} =$ (Write as a mixed number.)

20. $6\frac{1}{5} =$ (Write as an improper fraction.)
SCIENCE ARTICLE SUMMARY

Title of Article: _____________________________

Company Name of Magazine, Newspaper, or Website: _____________________________

Author: _________________________________

Date of Article: __________________________

Web Address: ____________________________

Summary: ________________________________

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Definitions:

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