Kellman Brown Academy

GET READY FOR
8TH GRADE
SUMMER PACKET

NAME: ___________________
Write the text example from the book here:

Example 1: Page

Then explain what the example shows about the power of words. One of the themes of the book Thief is "the power of words." Write below, first give examples from the book (including page numbers) of the power of words.

1. Read The Book Thief by M. Zusak and complete the double-entry journal below.

Summer Reading Assignment - Entering 8th Grade
2) DRAW a plot diagram of the novel.

Explain what the example above shows about the power of words.
Name:__________________________

SUMMER PRACTICE FOR ENTERING 8TH GRADE

Practice your math skills over the summer.
Use the website:
www.ixl.com

Please complete the following problems and hand the work in the second day of school. Show all work completely!!

Multiple Choices. Circle the answers.

1. Chicken strips at a restaurant sell for the following prices:
   4 pieces for $2.40       6 pieces for $3.00

   How much do customers save per chicken strip if they buy the larger quantity?
   a. $0.10           b. $0.20           c. $0.30           d. $0.60

2. Forty-five out of seventy-five students earned an A on a science exam. Which of the following is an equivalent way to write this ratio?

   a. \( \frac{9}{25} \)       b. \( \frac{4}{7} \)       c. \( \frac{3}{5} \)       d. \( \frac{2}{3} \)

3. Last week, Mrs. Helen paid $250 for 40 hours of child care. Which statement describes the rate Mrs. Helen paid for child care?

   a. She paid $0.16 per hour           b. She paid $9.60 per hour
   c. She paid $6.25 per hour           d. She paid $16.00 per hour

4. Gerry decided to paint a new picture. This time, for every 3 striped squares, he painted 2 shaded squares. When he was done, he had painted 8 shaded squares. What proportion could be used to find how many squares were striped?

   a. \( \frac{8}{2} = \frac{3}{x} \)       b. \( \frac{x}{8} = \frac{2}{3} \)       c. \( \frac{x}{8} = \frac{3}{2} \)       d. \( \frac{8}{2} = \frac{x}{3} \)
5. Which statement is true for the point (78, 30) in the graph?

- a. About 30 pints of potatoes are needed for 78 meals.
- b. About 78 pints of potatoes are needed for 30 meals
- c. After 78 meals are served, about 30 pints of potatoes are not used
- d. After 30 meals are served, about 78 pints of potatoes are not used

6. David is volunteering as a counselor at a children's camp. The ratio of counselors to campers much be at least 1:8. If 100 children have signed up for the camp, how many counselors are needed?

- a. 8  
- b. 10  
- c. 12  
- d. 13

7. Manny had $3,500 in his saving account. It earns 3% simple interest each year. If he leaves the money in the account for 8 years, how much interest would he earn?

- a. $148  
- b. $840  
- c. $8,400  
- d. $9,333

8. Richard went to a sporting goods store to buy his World Cup soccer jersey for a regular price of $70. When he arrived at the register he was told that it was on sale with a 25% discount. What was the sale price of the jersey?

- a. $87.50  
- b. $52.50  
- c. $45.00  
- d. $58.25

9. Jane and her family had dinner at Champps. Their original bill was $63.00. They were charged 6% tax on their original bill. They also left an 18% tip on the original bill. What was their total bill including tax and tip?

- a. $11.34  
- b. $77.00  
- c. $87.00  
- d. $78.12
10. Mary drew a scale model of her house. Her key stated that for every 2 inches on her drawing, the actual length of the house was 20 feet. On her drawing, one side of the house measured 8 inches in length. What was the actual length of this side of her house?

a. 80 feet  b. 96 feet  c. 192 feet  d. 288 feet

11. A rectangular pyramid is sliced by a plane that is perpendicular to the base of the pyramid as shown. Which BEST describes the resulting face of the slice?

a. rectangle  b. trapezoid  c. square  d. triangle

12. The diameter of a cylindrical garbage can is 24 inches. What is the approximate circumference? Use 3.14 for π

a. 75.36 inches  b. 113.04 inches  c. 235.50 inches  d. 452.16 inches

13. Tom has a box of 600 tiny blocks. Each block is a cube with dimensions of 1 cm x 1 cm x 1 cm. The blocks are arranged in the box in rows and layers so that there are no gaps. Which could be the dimensions of the box?

a. 5 cm x 10 cm x 12 cm  b. 5 cm x 10 cm x 10 cm  c. 10 cm x 10 cm x 12 cm  d. 200 cm x 200 cm x 200 cm

14. Carly and her friends are camping in a tent that is in the shape of a triangular prism. The tent is 6 feet long. Each end of the tent is in the shape of a equilateral triangle with a side length of 4 feet and an altitude of 3.5 feet. If all the surfaces of the tent are covered including the ground layer, how much fabric was used to make the tent?

a. 72 ft²  b. 14 ft²  c. 42 ft²  d. 86 ft²
15. What 3-dimensional solid is represented by the net to the right.
   a. cone     b. cylinder  
   c. circular pyramid  d. triangular pyramid

16. Find the area of the figure to right.
   a. 32.5 m$^2$     b. 59.5 m$^2$  
   c. 113.75 m$^2$  d. 204 m$^2$

17. Find the area of the following triangle
   a. 12 ft$^2$     b. 24 ft$^2$  
   c. 15 ft$^2$  d. 30 ft$^2$

18. The number of males and females at the movie theater are shown in the table below.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>7</td>
</tr>
<tr>
<td>Males</td>
<td>8</td>
</tr>
</tbody>
</table>

One person is chosen at random to receive a free bucket of popcorn. What is the probability that the person is female?

a. $\frac{7}{15}$     b. $\frac{1}{4}$  
   c. $\frac{7}{8}$  d. $\frac{1}{2}$
19. Joe is conducting a survey for his social studies class. He asked 50 fellow students what their favorite subject is. His results are listed below.

What percentage of classmates chose the most popular subject?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>9</td>
</tr>
<tr>
<td>English</td>
<td>19</td>
</tr>
<tr>
<td>Science</td>
<td>11</td>
</tr>
<tr>
<td>Phys Ed</td>
<td>4</td>
</tr>
<tr>
<td>Social Studies</td>
<td>7</td>
</tr>
</tbody>
</table>

a. 8%  

b. 22% 

c. 38%  

d. 14% 

20. The bookstore at Kellman’s school sells 4 different colored pens: blue, black, red, and purple. They come in 2 types erasable and non-erasable. Equal numbers of all colors and types of pens are distributed to students at random. What is the probability that a student will receive a red erasable pen?

a. $\frac{1}{8}$  

b. $\frac{3}{8}$  

c. $\frac{1}{4}$  

d. $\frac{1}{2}$  

21. The sandwich choices at Danny’s Sandwich Shop are shown in this table. A customer must pick one type of bread and one type of filling.

What is the probability that a customer will choose egg salad on sourdough bread?

<table>
<thead>
<tr>
<th>Types of Bread</th>
<th>Types of Fillings</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Tuna Salad</td>
</tr>
<tr>
<td>Wheat</td>
<td>Egg Salad</td>
</tr>
<tr>
<td>Rye</td>
<td>Ham Salad</td>
</tr>
<tr>
<td>Sourdough</td>
<td></td>
</tr>
</tbody>
</table>

a. $\frac{1}{7}$  

b. $\frac{2}{7}$  

c. $\frac{7}{12}$  

d. $\frac{1}{12}$  

22. For a probability experiment, Abe was given a coin with heads and tails and a standard number cube. (a die)

If he tosses the coin and rolls the cube, what is the probability that Abe will get heads on the coin and a 3 on the cube?

a. $\frac{1}{8}$  

b. $\frac{3}{8}$  

c. $\frac{1}{6}$  

d. $\frac{1}{12}$  

![Coin and cube]
23. Sabrina has a DVD collection that includes 12 comedies, 8 cartoons, and 10 action movies. She randomly chooses 2 movies from her collection and sits down to watch them in the order they were selected. What is the probability that she watches a comedy movie first and then an action movie?

a. $\frac{1}{9}$  

b. $\frac{11}{15}$  

c. $\frac{2}{15}$  

d. $\frac{4}{29}$

24. The Orchards Swim Club has 252 swimmers on 21 swimming teams. The director is trying to determine the club’s average time for the 400 meter freestyle event. Rather than include the times of all 252 swimmers, he decides to do a random sample using the times of 4 members of each team. Which method will generate a random sample of swim times?

a. Use the times of the 4 best swimmers on each team

b. Use the times of the 4 worst swimmers on each team

c. Arrange the swimmers in alphabetical order and use the times of the first 4 swimmers on each list

d. Arrange the swimmers in order of most medals won and choose the first 4 from that list.

25. Three friends had a basketball shooting contest to see who could make the most shots. They determined the winner of the contest to be Luis because he had a mode of 5 shots. The table below shows the number of shots made in each round of the contest.

Why might there be a better choice than Luis as the winner of the contest?

a. Tim had a higher mode than Luis

b. Sarah had a higher mode than Luis

c. The mode is not always the best indicator of success

d. The mode was not able to be found in the table
26. The random sample of students in a school were polled about which elective they had chose this year. The results were recorded in a table.

Which inference BEST describes the student Population at this school?

a. The students prefer to be active
b. The students have many foreign friends
c. The students avoid listening to the radio
d. The student have a high interest in painting

<table>
<thead>
<tr>
<th>Elective</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music</td>
<td>34</td>
</tr>
<tr>
<td>Gym</td>
<td>89</td>
</tr>
<tr>
<td>Art</td>
<td>15</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>62</td>
</tr>
</tbody>
</table>

27. The box-and-whisker plot shows students' times in the 100 meter freestyle swim, in seconds, in the first two rounds of a swim meet.

Which best describes the relationship between the two sets of data?

a. None of the first round times overlap with second round times
b. All of the first round times overlap with all of the second round times
c. The upper half of first round times overlaps with the lower half of second round times.
d. The lower half of first round times overlaps with the upper half of second round times

28. The members of the Model Car Club split into teams for the annual distance trials. During the trials, each teammate measured the distance in feet that his or her model car traveled. The results of the trial are shown below. Write a few statements to describe the relationships between the two sets of data.

<table>
<thead>
<tr>
<th>Distance for Each Car</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team A</td>
</tr>
<tr>
<td>4 6 8 8 2</td>
</tr>
</tbody>
</table>

Key: $87/4 = 78, 74$
29. Which data set has a mean with largest value?
   a. \{78,90,1,3,98,3\} 
   b. \{8,7,13,20,9,16,13,4,8\} 
   c. \{55,43,54,55,54,50\} 
   d. \{1,1,1,2,99,3,2,2\}

30. The distance a train travels over time is shown in the line graph below.

At what rate of speed does this train travel?
   a. 10 miles per hour 
   b. 50 miles per hour 
   c. 40 miles per hour 
   d. 60 miles per hour

31. Vana flew 1745 miles from Chicago to Los Angeles to visit her sister. The key on Vana’s map show that 1 inch represents 350 miles. If \(x\) represents the number of inches between the two cities on Vana’s map, which proportion could be used to determine \(x\)?

   a. \[\frac{x}{350} = \frac{1}{1395}\] 
   b. \[\frac{1}{350} = \frac{x}{1395}\] 
   c. \[\frac{1}{350} = \frac{x}{1745}\] 
   d. \[\frac{x}{350} = \frac{1}{1745}\]
Open Ended

1. $-3^2 - (-8)$
2. $(-2)^3 + 4 + 2 - 3$
3. $(3 - 4)^5 - 17 + 1^{12}$

4. $2x^2 + 6x + 3$ for $x = -6$
5. $-x^3 + 2x^2 - x + 8$ for $x = 3$

6. Solve for $x$:
   a. $16 = -(2 - 2x)$
   b. $-8(3x - 5) = 56x$
   c. $123 = 9x + 4 - 7x$
   d. $30 - 5(x - 10) = 11x$
   e. $2x - 2 > 10$
   f. $-4x - 21 \leq 29$
   g. $\frac{x}{-6} < 3$

5. Graph on a number line number 6e and 6f.