



# PACKETS

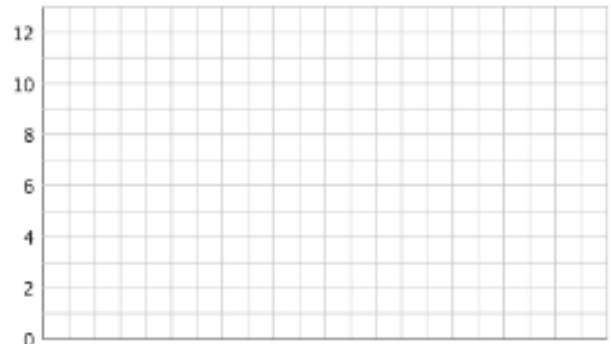
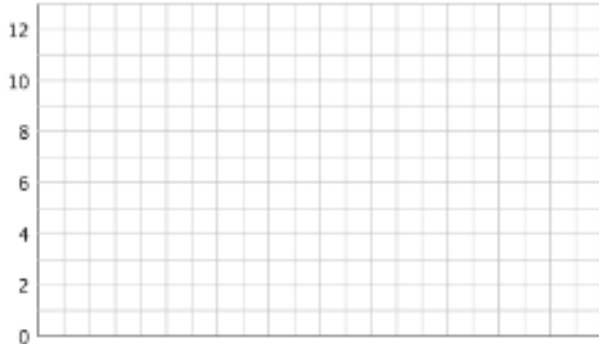
## PART II: Finding the Mean (Textbook pages 311-312)

1. Explain what the mean or average of a data set actually represents.
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2. Five servers were scheduled to work the number of hours shown in the table below. They decided to share the workload, so each one would work equal hours.

	server A	server B	server C	server D	server E
hours worked	3	6	11	7	4

- a. **On the grid to the left**, draw a bar graph that represents the hours worked by servers A, B, C, D, and E.



- b. Think about how you would rearrange the hours so that each server gets a fair share. Then, on the **grid on the right**, draw a new graph to represent the rearranged hours. Feel free to use a different color to help distinguish where the hours shifted or moved.

- c. Based on the graph to the right, what is the average or mean number of hours that the servers will work?

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- d. Explain why we can also find the mean by finding the value of  $31 \div 5$ .
- e. Which server will see the biggest change to work hours?
- f. Which server will see the least change?
- g. Server F, working 7 hours, offers to join the group of five servers, sharing their workload. If server F joins, will the mean number of hours worked increase or decrease? Explain how you know.

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3. For the past 12 school days, Mia has recorded how long her bus rides to school take in minutes. The time she recorded are shown in the table below.

9	8	6	9	10	7	6	12	9	8	10	8
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- a. Find the mean for Mia's data. Show your thinking.
- b. In this situation, what does the mean tell us about Mia's trip to school?

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- Mrs. Brightman gives 4 quizzes each worth 5 points. After 3 quizzes, Sandy has the scores 4, 3, and 4. What does Sandy need to get on the last quiz to have a mean score of 4? Explain or show your thinking.

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### **PART III: Median (Textbook pages 315-316)**

- What does the median of a set of data describe?

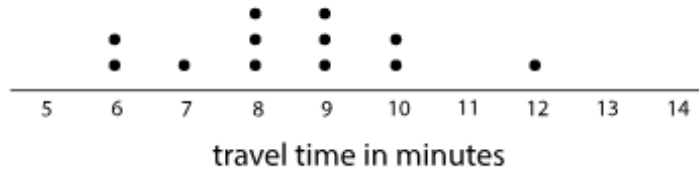
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- What must you do first when determining the median of a set of data?

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- Is the median always one of the values in the data set? If not, when is it not?

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- Why do we need another measure of center other than the mean?

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9. The dot plot below shows the travel time, in minutes, of Morgan's bus rides to school.



- a. Find the median travel time. Show your thinking or explain your reasoning.
- b. Interpret the median - what does the median represent for this situation?

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10. Eden and Joseph are practicing their instruments for an upcoming rehearsal. The tables list the number of minute each of them practiced in the past few weeks.

Eden's practice times:

10	10	20	15	25	25	8	15	20	20	35	25	40
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Joseph's practice times:

25	10	15	30	15	20	20	25	30	45
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- a. Find the median of each data set. Show your thinking below.
- b. Explain what the medians tell you about Eden's and Joseph's practice.

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11. When are the mean and median likely to be close together? Draw an example of data in a dot plot or histogram where the mean and median are relatively close together.

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12. When are the mean and median likely to be different? Draw an example of data in a dot plot or histogram where the mean and median will be different.

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13. In foreign language class, David's homework scores are:

100	100	100	100	95	100	90	100	0
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- a. Is there an outlier in this data set? If so, what is it?
- b. Write an argument for David to explain why median would be a better measure to use for his homework grades.

## **PACKETS**

### **PART IV: Review - Decimal Addition and Subtraction (Textbook pages 19-20)**

14. Describe how adding and subtracting decimals is different from multiplying decimals.

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15. When subtracting decimals, which number always goes on the top?

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Directions: Find the following sums and differences showing all of your thinking in the space provided. In addition to the actual answer, provide an estimate and include the values you are using for your estimate.

16.  $34.3 + 12.754$

Estimate: \_\_\_\_\_

Actual: \_\_\_\_\_

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17.  $13 + 74.2 + 1.456$

Estimate: \_\_\_\_\_

Actual: \_\_\_\_\_

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18.  $45.3 - 11.95$

Estimate: \_\_\_\_\_

Actual: \_\_\_\_\_

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19.  $24 - 13.783$

Estimate: \_\_\_\_\_

Actual: \_\_\_\_\_

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20. Explain the mistakes the student made in finding the following difference:  $67 - 12.76$

*Student's Work:*

$$\begin{array}{r} 12.76 \\ - 0.67 \\ \hline 12.09 \end{array}$$

Find the correct difference. Show your thinking below.



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### PART V: Review - Dividing Whole Numbers (Textbook pages 386-387)

21. What are the three ways a division problem can be modeled? Label the dividend and divisor in each model.

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Directions: Find the following quotients showing all of your thinking in the space provided. In addition to the actual answer, provide an estimate and include the values you are using for your estimate. Write the remainder (if any) as a decimal.

22.  $541 \div 8$

Estimate: \_\_\_\_\_

Actual: \_\_\_\_\_

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23.  $\frac{1937}{40}$

Estimate: \_\_\_\_\_

Actual: \_\_\_\_\_