

# UNIT 2 STUDY GUIDE

Name Answer Key #

Date \_\_\_\_\_

## Unit 2 Study Guide

- Write the number 28,142 in word form.  
twenty-eight thousand, one hundred forty-two
- Write the number 1,202,909 in word form.  
one million, two hundred two thousand, nine hundred nine
- What is the value of the digit in the thousands place?  
5,391      5,000
- What is the value of the digit in the thousands place?  
4,583,769      3,000
- Peter asked his classmates to estimate the number of movies they watch in a month. He recorded the information on the tally chart below. Use Peter's tally chart to explain the process of finding the median of the data.

Number of movies	Number of Students
0	+++
1	
2	+++
3	
4	
5	
6	+++
7	
8	

Median = 4  
↓

0, 0, 0, 0, 0, 1, 2, 2, 2, 2, 2, 3, 3, 4, 4, 4, (4), 5, 5, 5, 5, 6, 6, 6, 6, 6, 7, 7, 7, 8, 8

Put all the data (numbers) in order from least to greatest. Cross out the smallest and largest numbers until you find the middle (or median) number.

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6. Peter asked his classmates to estimate the number of movies they watch in a month. He recorded the information on the tally chart below. Use Peter's tally chart to explain the process of finding the mode.

Number of movies	Number of Students
0	
1	
2	+++
3	
4	
5	+++
6	
7	+++
8	

Most frequent is the mode!

Mode

0, 0, 1, 1, 2, 2, 2, 2, 2, 3, 3, 4, 4, 4, 5, 5, 5, 5, 5, 5, 6, 6, 6, 6, 7, 7, 7, 7, 7, 7, 8, 8, 8, 8

7. Peter asked his classmates to estimate the number of movies they watch in a month. He recorded the information on the tally chart below. Use Peter's tally chart to explain the process of finding the range.

Number of movies	Number of Students
4	
3	
8	
1	
0	
5	+++

Range is the difference between the maximum & minimum.

8 Max. } 8 - 0 = 8  
0 Min }

Range is 8.

Minimum

0, 1, 1, 3, 3, 3, 4, 5, 5, 5, 5, 5, 8, 8

Maximum

8. Write "one hundred forty-three thousand, five hundred sixty-four" with digits.

143,564

9. Write "six million, eight hundred nine thousand, two hundred three" with digits.

6,809,203

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10. Use the number 23,674.

- a. Which digit is in the ones place? What is the value of that digit? **4**
- b. Which digit is in the tens place? What is the value of that digit? **7**
- c. Which digit is in the thousands place? What is the value of that digit? **3**

11. What (digit) is in the ten thousands place? **5**

9,857,031  
↑

12. Draw a square.



Add.

13.  $178 + 591 = 769$

$$\begin{array}{r} 178 \\ + 591 \\ \hline 769 \end{array}$$

14.  $633 + 1,346 = 1,979$

$$\begin{array}{r} 633 \\ + 1,346 \\ \hline 1,979 \end{array}$$

15. 4,900 = 3,400 + 1,500

Subtract.

16. 354 = 879 - 525

$$\begin{array}{r} 879 \\ - 525 \\ \hline 354 \end{array}$$

17.  $389 - 51 = 338$

$$\begin{array}{r} 389 \\ - 51 \\ \hline 338 \end{array}$$

18. 876 = 3,447 - 2,571

$$\begin{array}{r} 3,447 \\ - 2,571 \\ \hline 876 \end{array}$$

19. Draw a polygon with at least one right angle. Mark the right angle(s) with a square corner symbol.



or

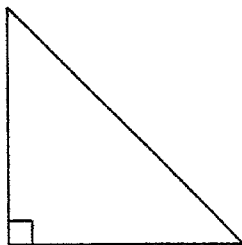


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20. Is this figure a parallelogram? Explain your answer.



No, it is not a parallelogram because it doesn't have 2 pair of parallel sides.

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21. As part of her science project on sleep, Samantha asked 13 students in her class how many hours they had slept the night before, to the nearest half-hour. Here are the results of her survey.

Number of hours slept	Number of students
6	
6.5	
7	/
7.5	//
8	
8.5	////
9	
9.5	///
10	
10.5	///
11	

- a. How many students slept 9 hours? 0  
b. What is the median number of hours the students slept? 8.5  
c. What is the mode? 8.5  
d. What is the maximum number of hours slept? 10.5  
e. What is the range of hours they slept? 3.5 → Range  $10.5 - 7 =$   
f. Explain how you found the median.

~~7~~ 7.5, ~~7.5~~, ~~8.5~~, ~~8.5~~, ~~8.5~~, 8.5 (Median), ~~9.5~~, ~~9.5~~, ~~9.5~~, ~~10.5~~, ~~10.5~~, ~~10.5~~ (Maximum)  
↑ Minimum  
Mode ↓ most frequent

$$\begin{array}{r} 10.5 \\ - 7.0 \\ \hline 3.5 \end{array}$$

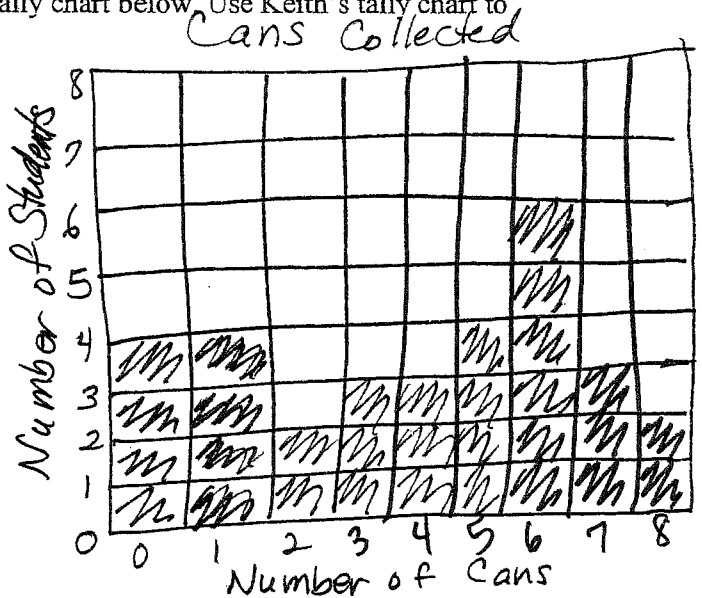
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22. Keith asked his classmates to estimate the number of cans of food collected for the can drive at school. He recorded the information on the tally chart below. Use Keith's tally chart to make a bar graph of the data.

Number of Cans of Food	Number of Students
0	
1	+++
2	
3	
4	
5	
6	++++
7	
8	



23. Samantha wanted to show the number 27 on her calculator. The 7-key on her calculator was broken, so this is what she did:

3  ×  8  +  3  =  27

①  $3 \times 10 - 3 = 27$     ②  $15 \times 2 - 3 = 27$

Find two other ways to show 27 without using the 7-key.

24. Measure the line segment below to the nearest half-centimeter.



25. Draw a line segment that is 12.5 centimeters long.



26. Circle the problems below whose sum or difference is greater than 300. Solve the problems you circled.

a. 
$$\begin{array}{r} 217 \\ + 64 \\ \hline 281 \end{array}$$

b. 
$$\begin{array}{r} 578 \\ + 613 \\ \hline 1191 \end{array}$$

c. 
$$\begin{array}{r} 454 \\ - 112 \\ \hline 342 \end{array}$$

d. 
$$\begin{array}{r} 2,783 \\ + 2,030 \\ \hline 4,813 \end{array}$$

e. 
$$\begin{array}{r} 8,605 \\ - 7,512 \\ \hline 1,093 \end{array}$$

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27. Circle the problems below whose sum or difference is greater than 300. Solve the problems you circled. Explain the estimation strategy used.

a.  $978$

$$\begin{array}{r} + 50 \\ \hline \end{array}$$

$$\underline{1,028}$$

b.  $888$

$$\begin{array}{r} + 386 \\ \hline \end{array}$$

$$\underline{1,274}$$

c.  ~~$8968$~~

$$\begin{array}{r} - 274 \\ \hline \end{array}$$

$$\underline{694}$$

d.  $8,841$

$$\begin{array}{r} + 3,064 \\ \hline \end{array}$$

$$\underline{11,905}$$

e.  ~~$4,980$~~

$$\begin{array}{r} - 2,162 \\ \hline \end{array}$$

$$\underline{2,768}$$