Super-Journal Week 4:3

Every night, you should be reading at least 30 minutes of whatever book you have checked out from your assigned reading list. Tape or glue (but do not staple) this sheet into your Super-Journal on the left-side page. Fill in the table below *every day* by recording the required data.

Day	Title	Start Pg.	End Pg.	Parent Sign.
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

On the right-side page of your Super-Journal, answer two of the questions below throughout the week. Be sure that the questions you choose to answer go with the appropriate type of book (Fiction or Nonfiction). The Super-Journal is due on the first day after the weekend (usually Monday). To earn credit for your journal entry, you *must* respond in at least five complete sentences per response and use **specific evidence from the text to support your claim** based on what you've read this week.

FICTION

1. Give an example of a word from your text that you had to use strategies to determine the meaning of. Explain how you found the meaning of this unknown word.

2. What strategies can you use to help you find the meaning of words in your text.

NONFICTION

1. What clues from the sentence can help you figure out the meaning of an unknown word?

2. What text features can help you figure out the meaning of an unknown word?

3. Does the unknown word have a prefix or suffix? How can this help you?

RL.2.4/RI.2.4

Super-Journal Week 4:4

Every night, you should be reading at least 30 minutes of whatever book you have checked out from your assigned reading list. Tape or glue (but do not staple) this sheet into your Super-Journal on the left-side page. Fill in the table below *every day* by recording the required data.

Day	Title	Start Pg.	End Pg.	Parent Sign.
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

On the right-side page of your Super-Journal, answer two of the questions below throughout the week. Be sure that the questions you choose to answer go with the appropriate type of book (Fiction or Nonfiction). The Super-Journal is due on the first day after the weekend (usually Monday). To earn credit for your journal entry, you *must* respond in at least five complete sentences per response and use **specific evidence from the text to support your claim** based on what you've read this week.

FICTION

1. Summarize what has happened so far.

2. What was the author's purpose in writing this text?

NONFICTION

1. Did the author use any evidence to support his thinking? Give an example.

2. Identify at least two points the author is trying to make in the text.

RL.1.1/RI.3.8

Lesson **14-3 • Reinforce Understanding**

Evaluate Numerical Expressions

Name _____

Review

To evaluate a numerical expression, use the order of operations.
Consider $21 - (16 + 8) \div 3 \times 2$

Step 1	Evaluate any expressions inside grouping symbols.	$21 - (16 + 8) \div 3 \times 2$ $21 - 24 \div 3 \times 2$
Step 2	Perform any multiplication or division in order from left to right.	$21 - 24 \div 3 \times 2$ $21 - 8 \times 2$ $21 - 16$
Step 3	Perform any addition or subtraction in order from left to right.	5

So, by the order of operations, $21 - (16 + 8) \div 3 \times 2 = 5$.

Match the expression in Column A to its answer in Column B.

	Column A
1.	$30 \div 5 \times 2 + 5$
2.	$30 \div (5 \times 2) + 5$
3.	$30 \div 5 \times (2 + 5)$
4.	$30 - (2 + 4) \div 2$
5.	$30 - 2 + 4 \div 2$
6.	$(30 - 2 + 4) \div 2$
7.	$2 \times 12 - 12 + 12 \div 2$
8.	$2 \times (12 - 12) + 8 \div 2$
9.	$2 \times 12 - (12 + 8) \div 2$

Column B
27
18
8
14
42
16
4
17
30

Evaluate the numerical expression.

5. $10 - 5 + 2$

6. $6 + 12 \div 6$

7. $(3 + 4) \times 3$

8. $15 - (2 + 7) + 1$

9. $24 \div 2 \times 6 + 1$

10. $8 \div (2 \times 2) + 1$

11. $2 \times 9 - 8 + 1$

12. $14 - (6 + 7) + 4$

13. $42 \div 6 - 3 + 4 \times 5$

14. $4 + 36 \div (6 \div 3 + 4) \times 5$

15. $5 \times (12 - 2 \times 5) + 36 \div (10 - 6 + 2)$

Write a 3- or 4-step numerical expression at the top of a sheet of paper. Give your child four different color pencils. Assign a color to each of the steps. Have your child evaluate the expression, using the correct color to show progression from one step to the next. Repeat the activity with a different expression.

Writing and Interpreting Expressions

30.

Name: _____

Write an expression for each phrase. Then solve the problem.

1. 10 minus the sum of 2 and 3

   _____

   Solution: _____

2. 10 minus the product of 2 and 3

   _____

   Solution: _____

3. 3 times the difference of 4 and 2

   _____

   Solution: _____

4. the sum of 3 and 5, divided by 4

   _____

   Solution: _____

5. the difference of 5 and 2, times 3

   _____

   Solution: _____

6. 5 plus the difference of 9 and 4

   _____

   Solution: _____

7. 24 divided by the product of 6 and 2

   _____

   Solution: _____

8. 8 plus the quotient of 27 and 3

   _____

   Solution: _____

9. 12 minus half the sum of 6 and 4

   _____

   Solution: _____

10. the sum of 4 and $\frac{1}{2}$, multiplied by 2

    _____

    Solution: _____

11. 3 times the sum of 4 and 1, minus 9

    _____

    Solution: _____

12. half the product of 3 and 6, plus 2

    _____

    Solution: _____

13. Could you write the expression for problem 2 without parentheses? Explain.

Evaluating Expressions

30

Name: _____

The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1. $2 \times 4 + 2$

   _____

2. $2 \times (4 + 2)$

   _____

3. $8 - 3 + 1$

   _____

4. $8 - (3 + 1)$

   _____

5. $16 \div 4 + 4$

   _____

6. $16 \div (4 + 4)$

   _____

7. $8 + 10 \times \frac{1}{2}$

   _____

8. $(8 + 10) \times \frac{1}{2}$

   _____

9. $1 + 1 \div \frac{1}{2}$

   _____

10. $1 + 2 \times 3 + 4$

    _____

11. $1 + 2 + 3 \times 4$

    _____

12. $(1 + 2) \times (3 + 4)$

    _____

13. $(1 + 2) \times 5 + 4$

    _____

14. $2 - \frac{1}{4} \times 4 + 4$

    _____

15. $\left(2 - \frac{1}{4}\right) \times 4$

    _____

Answers

2	3	4	5	6
7	8	9	10	11
12	13	15	19	21

Lesson **14-4 • Reinforce Understanding**

Determine True Equations

Name _____

Review

An equation is true if the expressions on each side represent the same value.

Determine whether $12.5 - 3 \times 1.4 = 10.5 - 3.6 \div 3$ is true or false.

Left side of equation:		Right side of equation:	
$12.5 - 3 \times 1.4$		$10.5 - 3.6 \div 3$	
$12.5 - 4.2$	*Multiply.*	$10.5 - 1.2$	*Divide.*
8.3	*Subtract.*	9.3	*Subtract.*

Since 8.3 is not equal to 9.3, the equation is false.

Determine whether the equation is true or false.

1. $2.1 + (3 \times 8) = 30 - 3.9$ _____

2. $4\frac{1}{2} \times 3 + 1 = 24 \div 2 + 7$ _____

3. $100 \div (4 \times 5) = (10 \times 8) \div 2$ _____

4. $14.7 + (88 \div 8) = 16 + 23 - 13.3$ _____

5. Which expression makes the equation true?

   $\frac{2}{3} + (3 \times 4) =$ _____

   A. $(24 + 14) \times \frac{1}{3}$

   B. $34 \div (4 - 1)$

   C. $10 - \frac{1}{3} + 48$

   D. $\frac{5}{3} + 21$

Complete the equation to make it true.

5. $9 \div 3 + \_\_\_\_\_ = 3 + 214.5$

6. $78.6 + (3 \times 5) = (39.3 \times 2) + \_\_\_\_\_$

7. $\frac{2}{3} \times 59.6 = \_\_\_\_\_ \times \frac{8}{12}$

8. $36 \times (15 \div 5) = (9 \times 4) \times \_\_\_\_\_$

Write an equivalent expression to make the equation true.

9. $\frac{15}{45} \times \frac{5}{6} = \_\_\_\_\_$

10. $48 \div 6 - 5 = \_\_\_\_\_$

---

11. How can you determine if the equation is true without evaluating the expressions on both sides of the equal sign? Explain.

$$23.8 \times (2.4 + 1.9) = (23.8 \times 2.4) + (23.8 \times 1.9)$$

Math @ Home Activity

Have your child create the left side of an equation using any 3 numbers and any 2 operations. Create a right side of the equation and present it to your child. Ask your child to determine if the equation is true or false.

Lesson 14-5 • Reinforce Understanding

Determine an Unknown Value

Name _____

Review

1. Write an algebraic equation.
2. Use a variable to represent the unknown value.
3. Use the order of operations to simplify one or both sides of the equation.
4. Use number sense and problem-solving skills to find the value that makes the equation true.

1. Explain how you can find the value of the variable in the equation $3 \times b = 100 + (10 \div 2)$.

Find the value of the variable.

2. $m = 14 + 3 \times 8$

   $m =$ _____

3. $12 + 15 = c - 60$

   $c =$ _____

4. $20 \div a = 80 - 70$

   $a =$ _____

5. $(5 + 10) \div 3 = q - 1$

   $q =$ _____

6. $6 \times 7 = (y - 11) + 8$

   $y =$ _____

7. $t \times 4 = 22 - (12 \div 2)$

   $t =$ _____

Holly ran 5 km each day for 3 days. She ran 3 km on the 4th day. If she ran 20 km in 5 days, how many kilometers did she run on the 5th day?

8. Which equation represents the problem?

   A. $5 + 3 + d = 20$ **B.** $5 + 3 + 4 = d + 20$

   C. $(5 \times 3) + 3 + d = 20$ **D.** $(5 \times 3) + (3 \times 4) = d + 20$

9. How many kilometers did Holly run on the 5th day? _____

5. A museum displays 2,045 paintings. There are 670 paintings in the main hall, and 125 in each of the other rooms. Which of these equations can be solved to determine the unknown number of rooms? Choose all that apply.

   A. $670 + r = 2{,}045 - 125$

   B. $(2{,}045 - 670) \div 125 = r$

   C. $2{,}045 - 670 \div 125 = r$

   D. $670 + 125 \times r = 2{,}045$

6. A warehouse packages water bottles into cartons that hold 27 water bottles each. Radha needs to pack 449 water bottles today. There are 17 water bottles left after she packs cartons. Write an equation with a variable to determine how many cartons Radha packed.

7. Owen has 3 times more trophies than Leo. Leo has 4 trophies. How many trophies does Owen have? Write two different equations with a variable to represent the situation. Then solve.

8. Write a word problem that involves a real-world context that could be represented by the equation $28 + 14 \times w = 154$. Then solve.

Math @ Home Activity

Using the equations in Exercises 1–4 as examples, write new equations in which the correct values of the variables are numbers from 1 to 6. Have your child roll a number cube, and then find the equation(s) whose variable is equal to the number rolled.

Lesson 14-6 • Reinforce Understanding

Numerical Patterns

Name _____

Review

You can use an algebraic expression to write a rule for a numerical pattern.

+3 +3 +3 +3 Pattern: 1, 4, 7, 10, 13, ...	First, identify the relationship between the pattern values. $3 \times n$ represents the repeated addition.
$3 \times 0 = 0 \xrightarrow{\text{add 1}} 1$ $3 \times 1 = 3 \xrightarrow{\text{add 1}} 4$ $3 \times 2 = 6 \xrightarrow{\text{add 1}} 7$	Next, use the variable values to adjust the rule for the matching pattern values when $n = 0, 1, 2, 3, \ldots$
The rule $(3 \times n) + 1$ can be used to find any value in the pattern.	

Write an algebraic expression to represent the rule for the numerical pattern and variable.

1. Pattern: 4, 9, 14, 19, ...
   $a = 1, 2, 3, 4, \ldots$
   Rule: _____

2. Pattern: 16, 19, 22, 25, ...
   $x = 0, 1, 2, 3, \ldots$
   Rule: _____

3. Pattern: 5, 14, 23, 32, ...
   $k = 1, 2, 3, 4, \ldots$
   Rule: _____

4. Pattern: 2, 10, 18, 26, ...
   $r = 0, 1, 2, 3, \ldots$
   Rule: _____

Write an algebraic expression to represent the rule.

3. Pattern: 7, 9, 11, 13, ...

_____ : _____

Rule: _____

4. Pattern: 3, 7, 11, 15, ...

_____ : _____

Rule: _____

---

5. Gregory recorded the number of minutes he spends exercising each day during winter vacation. If he continues the pattern, how many minutes will he exercise on day 8?

Exercise Minutes: 11, 18, 25, 32, 39, ...

6. What algebraic expression can you use to represent the number of diamonds in the pattern shown below?

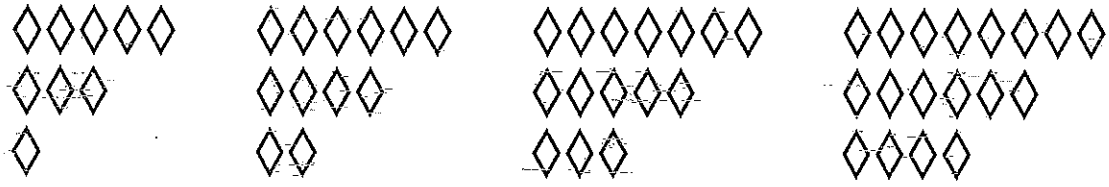

Figure 1 Figure 2 Figure 3 Figure 4

Math @ Home Activity

Create a matching game for your child: Write 10 different algebraic rules on one set of cards. Write the pattern of numbers that each of the rules represents on a different set of cards. Use the patterns and rules in Exercises 1-4 as examples. Have your child match the rule cards to the pattern cards.