Name _____

Topic 1
Multiple-Choice Test

Mark the best answer.

1. The United States population is about 301,500,000. How is 301,500,000 written in words? (1-1)

   A Three hundred fifteen thousand

   B Three hundred one thousand, five hundred

   C Three hundred one million, five hundred

   D Three hundred one million, five hundred thousand

2. Which shows forty-one billion, sixty-five million, nine hundred twenty thousand, seventy-one in standard form. (1-3)

   A 410,065,920,071

   B 41,650,920,071

   C 41,065,920,071

   D 4,165,920,071

3. What is the value of the 6 in 95,706,023,001? (1-1)

   A Six thousand

   B Sixty thousand

   C Six hundred thousand

   D Six million

4. Which of the following numbers is less than 8.605? (1-4)

   A 8.506

   B 8.614

   C 8.656

   D 86.05

5. Which is another way to write 370,200,690? (1-1)

   A 3,000 + 700 + 20 + 60 + 9

   B 300,000 + 7,000,000 + 200 + 6 + 9

   C 3,000,000 + 7,000 + 200 + 69

   D 300,000,000 + 70,000,000 + 200,000 + 600 + 90

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6. Which of the following correctly orders the numbers from greatest to least? (1-4)

   A 32.3, 32.8, 33, 34.4

   B 33.4, 33, 32.8, 32.3

   C 32.8, 33.4, 32.3, 33

   D 33, 33.4, 32.3, 32.8

7. What is the value of the 8 in 14.958? (1-3)

   A 8 thousandths

   B 8 hundredths

   C 8 tenths

   D 8 hundred

8. Which number set is ordered correctly from least to greatest? (1-2)

   A 953,006; 986,398; 964,334

   B 953,006; 964,534; 986,398

   C 986,398; 953,006; 964,534

   D 986,398; 964,534; 953,006

9. A certain measurement must be between 3.64 and 4.28 centimeters. Which number is greater than 3.64 and less than 4.28? (1-4)

   A 5.42

   B 4.39

   C 4.01

   D 3.53

10. Which number is largest? (1-2)

    A 27,094,232

    B 27,120,491

    C 2,814,332

    D 27,103,576

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11. Which statement is true? (1-2)

A $3{,}700{,}689 < 3{,}007{,}689$

B $4{,}500{,}000 = 405{,}000$

C $406{,}567{,}002 > 405{,}643{,}023$

D $543{,}877{,}225 > 553{,}100{,}000$

12. What is 3.449 in word form? (1-3)

A Three and forty-nine hundredths

B Three and four hundred forty-nine thousandths

C Three and four thousand four hundred forty-nine ten thousandths

D Thirty and four hundred forty-nine thousandths

13. Which of the following is more than 3.882? (1-4)

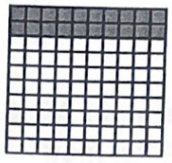
A 3.082

B 3.822

C 3.885

D 3.805

14. What part of the figure is shaded? (1-3)



A 0.2

B 0.02

C 0.002

D 0.020

15. In which direction will the arrow point in the next figure of the pattern? (1-5)

A Left

B Up

C Right

D Down

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Name _____

Reteaching
6-5

Order of Operations

If you do not use the proper order of operations, you will not get the correct answer.

Evaluate $8 \div 2 + 3 \times 6 - (1 \times 5)$.

Step 1. Do the operations inside the parentheses.

$(1 \times 5) = 5$
$8 \div 2 + 3 \times 6 - 5$

Step 2. Multiply and divide in order from left to right.

$8 \div 2 = 4$ and $3 \times 6 = 18$
$4 + 18 - 5$

Step 3. Add and subtract in order from left to right.

$4 + 18 = 22$
$22 - 5 = 17$
So, $8 \div 2 + 3 \times 6 - (1 \times 5) = 17$

Write which operation should be done first.

1. $6 + 3 \times 2$ _____

2. $13 - 1 + 4 \div 2$ _____

3. $5 \times (7 - 2) + 1$ _____

4. $(19 + 23) - (4 \times 5)$ _____

For questions **5** through **8**, evaluate the expression for $x = 6$ and $y = 17$.

5. $4x + 5y$ _____

6. $2x + (20 - y)$ _____

7. $x \div 3 + y$ _____

8. $4y \div 2 + (8x + 10)$ _____

9. There are 22 students in Natalie's class. New reading books cost $7 each. Natalie's class raised $50 washing cars. If there are 2 teachers in Natalie's class, write and evaluate an expression to show how much more each teacher will have to pay to buy the new reading books.

_____

10. Number Sense Carlos solved $20 - (2 \times 6) + 8 \div 4 = 29$. Is this the correct answer?

_____

_____

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Name

Name _____

Topic 6
Multiple-Choice Test

Mark the best answer.

1. Translate the algebraic expression into words: $n + 12$. (6-1)

   A 12 more than a number

   B 12 less than a number

   C A number divided by 12

   D A number multiplied by 12

2. If Ryan orders 7 boxes of pencils and each box has 198 pencils, he will have 7×198 pencils. Which of the following is equal to 7×198? (6-4)

   A $(7 \times 200) + (7 \times 2)$

   B $(7 + 200) \times (7 - 2)$

   C $(7 \times 200) - (7 \times 2)$

   D $(7 + 200) - (7 \times 2)$

3. Sandy ate 3 more carrots than Laura, who ate 8. Evaluate the expression $n + 3$ for $n = 8$. (6-2)

   A 5

   B 11

   C 13

   D 14

4. Amy finds a pair of shoes that is twice the amount of money she has. If m stands for the amount of money she has, which expression tells the price of the shoes? (6-1)

   A $m + 2$

   B $m - 2$

   C $m \times 2$

   D $m \div 2$

5. The expression $f - 6$ represents the amount of flour left after baking cookies when the original flour sack had f cups. How many cups of flour are left when $f = 10$? (6-2)

   A 2

   B 4

   C 5

   D 6

6. What is the first step in evaluating the expression below? (6-5)

   $2 + (3 \times 5) - 4 - 1$

   A Add 2 and 3.

   B Multiply 3 and 5.

   C Subtract 4 from 5.

   D Subtract 1 from 4

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Name _____

7. What value of y makes this equation true? (6-4)

$25 \times 210 = (25 \times 200) + (25 \times y)$

A 200

B 110

C 75

D 10

8. The number of balls of yarn needed to make a sweater is $3y + 5$. How many balls of yarn are needed if $y = 4$? (6-3)

A 30

B 21

C 17

D 12

9. Will has 24 T-shirts; $\frac{1}{4}$ of them are white and $\frac{1}{3}$ of them are yellow. How many T-shirts does Will have that aren't white or yellow? (6-6)

A 4

B 6

C 8

D 10

10. The expression $m \div 8$ can represent which of following phrases? (6-1)

A A number divided by 8

B 8 more than a number

C A number multiplied by 8

D 8 less than a number

11. What is the value of the expression $7 + (14 - 2) \div 4 + 3$? (6-5)

A 20

B 13

C 8

D 3

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12. Which expression can be used to represent the phrase "6 more than 8 times the number of pages, p"? (6-3)

A $8p + 6$

B $p + 6 \times 8z$

C $6p + 8$

D $48p + 6$

13. The expression $7 - 3x$ can be used to represent which phrase? (6-3)

A Seven less than three times a number

B Three less than seven times a number

C Seven minus three times a number

D Seven more than three times a number

14. What is the value of $8 + 2m - 3$ when $m = 4$? (6-5)

A 17

B 13

C 5

D 1

15. Which of the following expressions has a value equal to 4? (6-5)

A $8 + (4 \div 2) - 1 \times 4$

B $8 + (4 \times 2) - 1 \times 4$

C $8 \div (4 - 2) - 4 + 4$

D $8 \times (4 + 2) + 4 - 1$

16. The table shows the cost to drive through a tollgate on a highway. If each toll is the same amount, which expression shows the cost to drive through t tollgates? (6-2)

Number of tollgates, t	Total cost
3	$9
7	$21
15	$45

A $t + 9$

B $t + 15$

C $6t$

D $3t$

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Name _____

Topic **10**
Free-Response Test

Add. Write each sum in simplest form.

1. $\frac{7}{8} + \frac{3}{8} =$ _____

2. $\frac{4}{12} + \frac{4}{12} =$ _____

3. $\frac{7}{16} + \frac{1}{4} =$ _____

4. $5\frac{3}{9} + 2\frac{1}{9} =$ _____

5. $4\frac{3}{4} + 1\frac{4}{5} =$ _____

6. $1\frac{2}{3} + 2\frac{2}{6} =$ _____

Subtract. Write the difference in simplest form.

7. $\frac{9}{10} - \frac{3}{10} =$ _____

8. $\frac{7}{9} - \frac{2}{9} =$ _____

9. $\frac{5}{7} - \frac{1}{3} =$ _____

10. $5\frac{3}{5} - 2\frac{2}{5} =$ _____

11. $2\frac{1}{2} - 1\frac{4}{7} =$ _____

12. $4\frac{3}{8} - 1\frac{1}{4} =$ _____

Find the LCM of each pair of numbers.

13. 12 and 15 _____

14. 4 and 7 _____

Solve.

15. Tony worked $\frac{9}{10}$ of an hour on a technology project. Then he worked $\frac{7}{10}$ of an hour on a math assignment. How many hours did he work in all?

_____

16. Alex and Tim rode their bikes from their houses to the library. Alex rode $1\frac{3}{4}$ miles and Tim rode $\frac{2}{3}$ mile farther than Alex. How many miles did the boys ride in all?

_____

17. Alicia cut a pie into 7 equal pieces. She gave two pieces to her grandmother and twice as much to her brother Billie. What fraction of the pie was left?

_____

18. A farm has 60 cows, pigs, and horses. There are 4 times as many cows and pigs as horses. How many horses are there?

_____

19. A hardware store has a display of 75 screwdrivers. For every 7 flat-head screwdrivers, there are 8 Phillips-head screwdrivers. How many screwdrivers are there of each type?

_____

_____

_____

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Name _____

Reteaching
11-4

Relating Division to Multiplication of Fractions

How can you divide by a fraction?

Dividing a whole number by a fraction

$2 \div \frac{1}{3}$	Think: How can I divide two into one-thirds?
1. Two is the sum of one plus one. 2. Each one is the sum of three one-thirds. 3. Count the number of one-thirds. **Check** To divide a whole number by a fraction, multiply the whole number by the reciprocal of the fraction.	$2 = 1 + 1$ $\frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3}$ 6 $2 \div \frac{1}{3} = 2 \times \frac{3}{1} = \frac{2}{1} \times \frac{3}{1} = \frac{6}{1} = 6$

$3 \div \frac{3}{4}$	Think: How can I divide three into three-fourths?
1. Three is the sum of one plus one plus one. 2. Each one is the sum of one three-fourths and one one-fourth. 3. Count the number of three-fourths. **Check** Multiply the whole number by the reciprocal of the fraction.	$3 = 1 + 1 + 1$ $\frac{3}{4} + \frac{1}{4} + \frac{3}{4} + \frac{1}{4} + \frac{3}{4} + \frac{1}{4}$ $\frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$ $\frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4}$ 4 $3 \div \frac{3}{4} = 3 \times \frac{4}{3} = \frac{3}{1} \times \frac{4}{3} = \frac{12}{3} = 4$

Draw a picture that shows each division and write the answer.

1. $2 \div \frac{1}{2}$ _____

2. $2 \div \frac{2}{3}$ _____

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Name _____

Practice
11-4

Relating Division to Multiplication of Fractions

In **1** and **2**, use the picture to find each quotient.

1. How many thirds are in 1?

_____

2. How many thirds are in 7?

_____

In **3** and **4**, draw a picture to find each quotient.

3. $3 \div \frac{1}{2}$

_____

4. $4 \div \frac{1}{8}$

_____

In **5** and **6**, use multiplication to find each quotient.

5. $6 \div \frac{1}{3}$

_____

6. $5 \div \frac{1}{10}$

_____

7. Julie bought 3 yards of cloth to make holiday napkin rings. If she needs $\frac{3}{4}$ of a yard to make each ring, how many rings can she make?

_____

8. **Reasoning** When you divide a whole number by a fraction with a numerator of 1, explain how you can find the quotient.

_____

_____

_____

Daily Spiral Review

Practice **11-4**

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Name _____

Daily Spiral Review
11-5

1.

$4 \div \frac{1}{3} = ?$

A $\frac{4}{3}$
B 4
C 12
D 13

2. Brenna has a piece of fabric that is 12 yards long. She wants to cut the fabric into strips. Each strip will be $\frac{2}{3}$ yard wide. How many strips will she have?

A 36
B 24
C 18
D 8

3. Find the product. Simplify your answer if necessary.

$2\frac{1}{3} \times 1\frac{2}{3} = ?$

A $1\frac{1}{3}$
B $3\frac{8}{9}$
C 4
D $11\frac{2}{3}$

4. Preesha has 6 pizzas. If she divides each pizza into eighths, how many people can have 2 pieces of pizza each?

5. Ryan estimates that he uses $\frac{2}{3}$ cup of syrup each time he eats pancakes. How many times will he be able to eat pancakes without running out of syrup if he has a giant bottle of syrup that contains 48 cups?

If Ryan uses only $\frac{3}{8}$ cup syrup out of the giant bottle each time he eats pancakes, how many times will he be able to eat pancakes without running out of syrup?

Daily Spiral Review
11-5

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Name _____

Daily Spiral Review
11-4

1. Find the product in simplest form:

$1\frac{3}{5} \times 3\frac{1}{8}$

A 5

B $3\frac{3}{40}$

C $\frac{64}{125}$

D $\frac{1}{5}$

2. During Primrose School's annual Walk for Education, Reba walked around the track $5\frac{5}{6}$ times. Holt walked around the track $1\frac{3}{5}$ times the number of times Reba did. How many times did Holt walk around the track? Simplify your answer.

A $3\frac{41}{128}$

B $5\frac{1}{8}$

C $9\frac{1}{3}$

D $9\frac{5}{16}$

3. $\frac{3}{12} > ?$

A 0.31

B 0.28

C 0.25

D 0.22

4. During the mayoral election, two debates were held between the candidates. The first debate lasted $1\frac{2}{3}$ hours. The second one was $1\frac{4}{5}$ times as long as the first one. How many hours long was the second debate? Estimate the product. Then find the actual product. Simplify if possible.

5. Estimate the product. Then find the actual product. Simplify if possible.

$\frac{3}{5} \times 5\frac{1}{3}$ _____

$4\frac{1}{4} \times 8$ _____

$2\frac{4}{5} \times 6\frac{2}{7}$ _____

$1\frac{6}{9} \times 5\frac{2}{3}$ _____

$3\frac{3}{5} \times 10\frac{1}{4}$ _____

$7\frac{2}{9} \times 9$ _____

$\left(1\frac{6}{7} - \frac{3}{4}\right) \times 7$ _____

$1\frac{1}{2} \times \left(4\frac{5}{6} + 2\frac{3}{8}\right)$ _____

Daily Spiral Review 11-4

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Name _____

Topic **11**
Free-Response Test

Multiply. Write each product in simplest form.

1. $6 \times \frac{2}{7}$ _____
2. $15 \times \frac{4}{5}$ _____
3. $\frac{1}{4} \times \frac{8}{9}$ _____
4. $\frac{2}{3} \times \frac{7}{8}$ _____
5. $\frac{6}{7} \times 2\frac{1}{2}$ _____
6. $1\frac{3}{8} \times 1\frac{1}{3}$ _____
7. $2\frac{2}{9} \times 3\frac{1}{4}$ _____

Divide. Write each quotient in simplest form.

8. $3 \div \frac{1}{3}$ _____
9. $5 \div \frac{1}{2}$ _____
10. $4 \div \frac{1}{2}$ _____
11. $10 \div \frac{1}{5}$ _____
12. $2 \div \frac{1}{6}$ _____
13. $6 \div \frac{2}{3}$ _____
14. $12 \div \frac{1}{4}$ _____

Solve.

15. Ethan lives $\frac{7}{8}$ mile from school. Sue lives $\frac{1}{2}$ of the distance from school that Ethan does. How far from school does Sue live?

_____

16. Tickets for the school play were \$10 and $\frac{1}{5}$ of each ticket paid for the cost of printing the programs. How much of each ticket went towards printing the programs?

_____

17. Kelly volunteers $3\frac{1}{4}$ hours each day at an animal shelter. How many hours does she volunteer in 5 days?

_____

18. The 80 students in the 5th grade at Northside Elementary School voted for their favorite animal after a trip to the zoo. The elephant received $\frac{3}{5}$ of the votes. How many votes did the elephant receive?

_____

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