Instructions for the Horizons Math Readiness Evaluation

The *Horizons Math Readiness Evaluation* helps to determine the level at which a student new to Horizons Math is ready to begin studying in the program. Here's how the placement works. If a student successfully completes the readiness test for 3rd grade, then the student should be placed into the 3rd grade level.

Begin testing at the grade level the student should be in next. If the student does poorly, have them also take the test for the previous level, if a student is breezing though a test, have them attempt the test for the next level. Instructions for scoring and evaluating the results of the test are given on the answer key pages.

The test for each level should take from 30 to 60 minutes. Students should be able to complete the tests on their own with the instructor making sure that they understand the directions for each individual activity. See the First grade test for special instructions on giving that test orally and for scoring the activities.

As always, use some common sense in evaluating the scores. Look at the problems that have been missed. If all of the incorrect responses occurred in one or two types of problems then the student may simply need some remediation in those areas and should not be placed back a grade level. For enrichment of the identified areas of weakness, refer to the "Appearance of Concepts" in each of the Horizons Math Teacher Handbooks. It will locate lessons where these concepts were taught.

GRADE 1 Horizons Math Readiness Evaluation, Part A

This Readiness Evaluation helps the teacher to determine if the student is ready to begin studying math at the first grade level. The evaluation should take about 30 minutes. This is an oral evaluation with the exception of activities 2 and 3 in **Part B**. A break to rest and relax is recommended after completing **Part A**.

1. Draw a set of shapes: circle, square, triangle, rectangle, oval, octagon, star, heart, and diamond. Point to the four basic shapes (circle, square, triangle, and rectangle) and ask the student to identify each one. If the student recognizes all four basic shapes, ask him to tell you if he knows what any of the other shapes are called. Knowledge of the four basic shapes and at least familiarization with some of the others is satisfactory.

2. Use construction paper or colored items with the following ten colors: red, blue, yellow, green, orange, purple, brown, pink, black, and white. The student should be able to identify seven to ten colors correctly.

3. Use a set of objects that are different in size, height and thickness to evaluate the student's ability to make comparisons. Ask which object is bigger or littler, larger or smaller, taller or shorter, thicker or thinner. Repeat the activity to determine whether the student comprehends the concept of comparison.

4. Use a large ball and ruler to ask the student a series of directional questions. Place the ruler in various positions corresponding to the ball and ask questions about location such as over, above, below, under, left, right, top and bottom.

5. Use pairs of items (clothing, pictures, blocks, or cut-out shapes) to evaluate the child's ability to identify one-to-one correspondence and differences. Have the student match pairs or similar items such as red socks, yellow blocks, or green crayons.

6. Create two sets of two objects each, two sets of three objects each, a set of five objects, and a set of ten objects (toothpicks, blocks, etc.). Ask the student to select the set with the least number of items, the greatest number and two that are of equal number.

Students who successfully complete this part of the evaluation may proceed to **Part B**. Students who do not respond well to **Part A** should be placed in Horizons Math K to aid them in developing beginning math skills.

GRADE 1 Horizons Math Readiness Evaluation, Part B
(A number chart is helpful when administering this test. Students will need paper and pencil.)

The total number of points is listed in parentheses after the numbered item. On the line provided, write the number of points the student receives as the section is completed.

_____**1.** Have the student tell you the following numbers as you point to them on the number chart. a. 16 b. 13 c. 45 d. 27 e. 89 f. 30 (**6** points)

_____**2.** Have the student write the numerals 1 to 10. (8 of 10 equals **1** point)

_____**3.** Have the student write the following numbers as you say them with the number chart visible. a. 4 b. 15 c. 39 d. 51 e. 80 (**5** points)

_____**4.** Have the student count from 1 to 20 aloud. (16 of 20 equals **1** point)

_____**5.** Have the student count out loud:
a. by 10's to 100 (8 of 10 equals **1** point)
b. by 5's to 50 (8 of 10 equals **1** point)
c. by 2's to 20 (8 of 10 equals **1** point)

_____**6.** Ask the student these questions. (Each question equals **1** point)
a. When you put two numbers together are you adding or subtracting?
b. What is one more than 8?
c. What is one more than 13?
d. What is 27 plus one?
e. What is 6 plus 0?
f. What is 15 plus 0?
g. What is 49 plus 0?

_____**7.** Ask the student these questions. (Each question equals **1** point)
a. When you take one number away from another are you adding or subtracting?
b. What is one taken away from 9?
c. What is one less than 18?
d. What is 52 minus 1?
e. What is 4 minus 0?
f. What is 12 minus 0?
g. What is 0 taken away from 33?

_____**8.** Show the number; then, ask these questions. (Each question equals **1** point)
a. This is a seven. What number comes after it?
b. This is a fourteen. What number comes after it?
c. This is a thirty-six. What number comes after it?
d. This is a five. What number comes before it?
e. This is a seventeen. What number comes before it?
f. This is a twenty-five. What number comes before it?
g. This is a four and this is a six. What number comes between them?
h. This is forty-one and this is forty-three. What number comes between them?
i. This is fifty-nine and this is sixty-one. What number comes between them?

_____ **TOTAL POINTS**

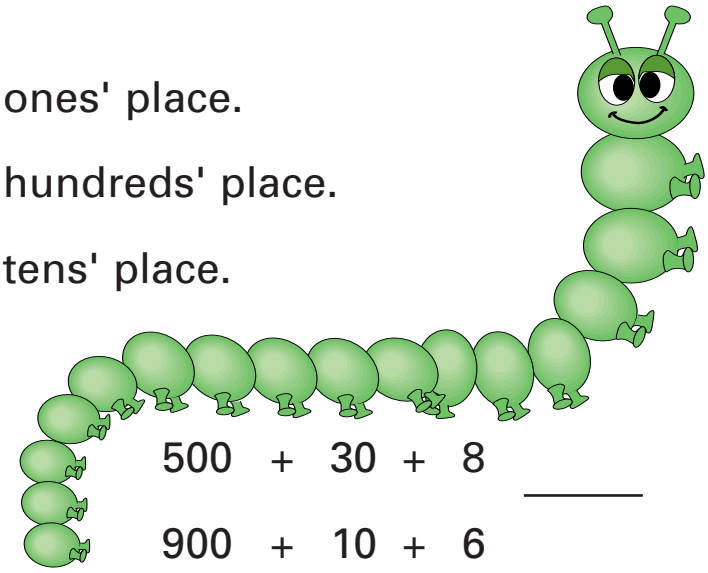
Students should achieve a minimum score of 24 out of a possible 39 points on this test. If they are unable to achieve this score, they should be placed in Horizons Math K to receive the preparation needed for the first grade curriculum.

1. Write the numbers.

452 has a _____ in the ones' place.

918 has a _____ in the hundreds' place.

763 has a _____ in the tens' place.

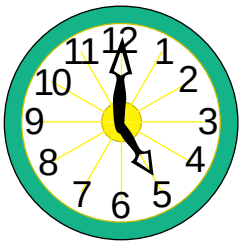


2. Write the numbers.

495 = _____ + _____ + _____ 500 + 30 + 8 _____

817 = _____ + _____ + _____ 900 + 10 + 6 _____

3. Write the correct time.



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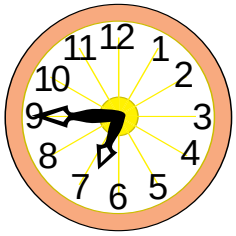
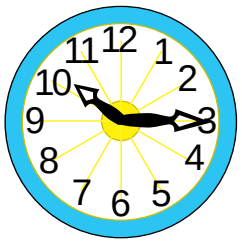


_____ : _____

_____ : _____



_____ : _____

4. Write the value of each coin.

_____ ¢

_____ ¢

_____ ¢

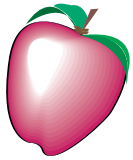
_____ ¢

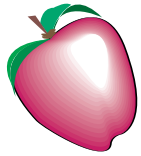
_____ ¢

_____ ¢

_____ ¢

_____ ¢





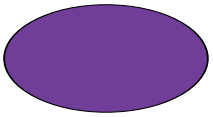
5. Add.

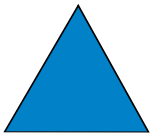
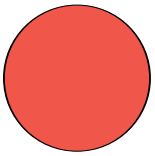
29	35	44	13	18	59	37	53
+33	+55	+29	+67	+33	+29	+87	+49
38	63	58	47	92	97	43	42
+88	+99	+42	+77	+19	+88	+27	+77

6. Write = or ≠ between each set.

3 + 7 ____ 10	7 + 9 ____ 16	5 + 9 ____ 13
4 + 9 ____ 12	5 + 3 ____ 9	6 + 8 ____ 14

7. Draw a line to match the shape to its name.



triangle

square

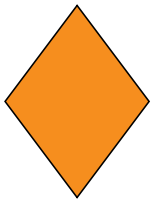
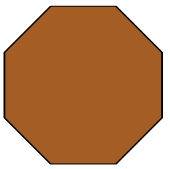
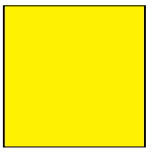
octagon

diamond

circle

oval

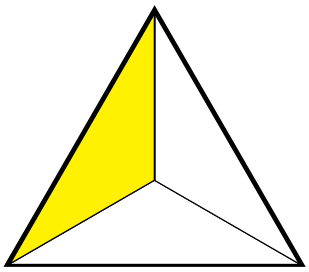
rectangle

8. Subtract.

11 - 9	16 - 8	17 - 7	12 - 6	15 - 8	13 - 7	11 - 3	13 - 6
12 - 5	14 - 8	17 - 8	11 - 4	15 - 7	13 - 4	18 - 9	16 - 8
68 -46	99 -35	72 -52	33 -20	78 -24	55 -43	57 -24	78 -27

9. Write the fractional part that is shaded.



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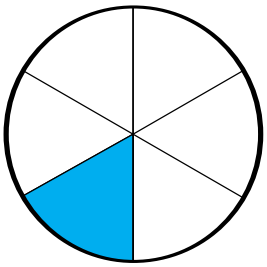

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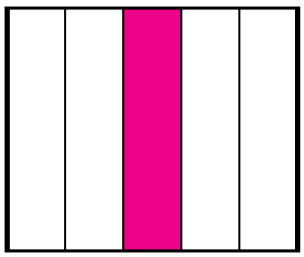

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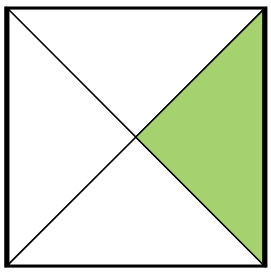

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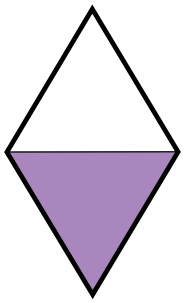

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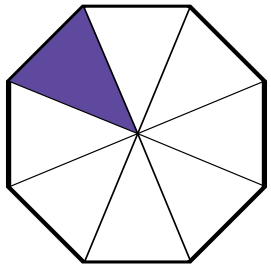


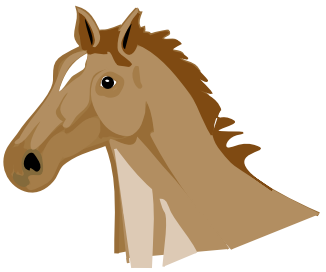
_____

10. How many eggs are in a dozen? _____

11. Write < or > between each set.

135 ____ 144 116 ____ 173

173 ____ 167 183 ____ 200



12. Circle every third number after 7.

(7)	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33

Write the circled numbers on the blanks.

____ ____ ____ ____ ____ ____ ____ ____ ____

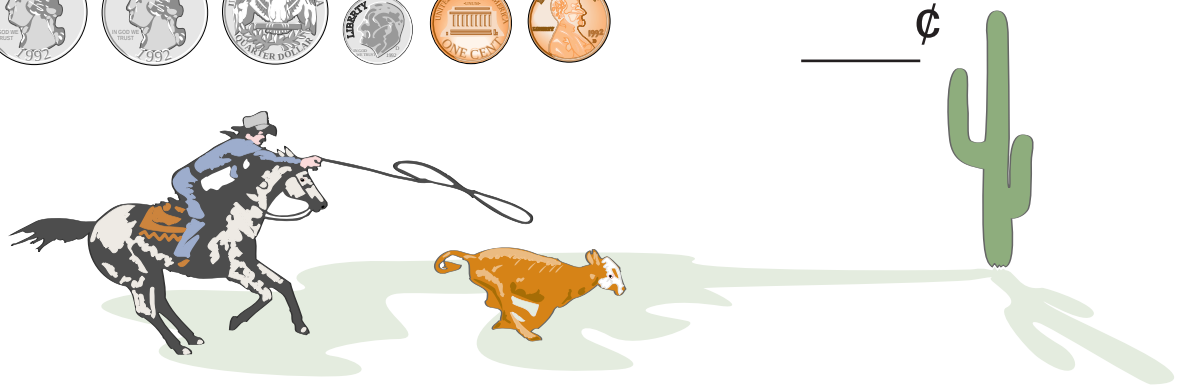
13. Write the value of each set of coins.

____¢

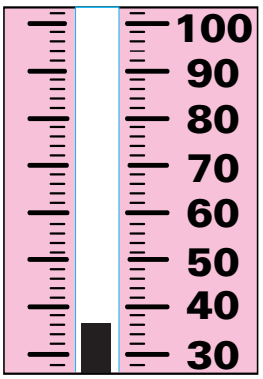
____¢

____¢

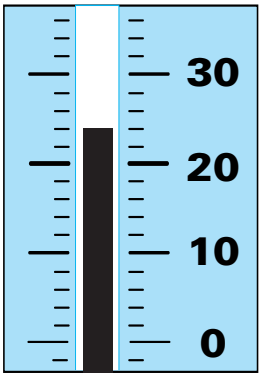
____¢



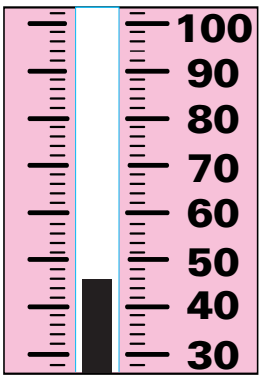
1. Write the temperature.



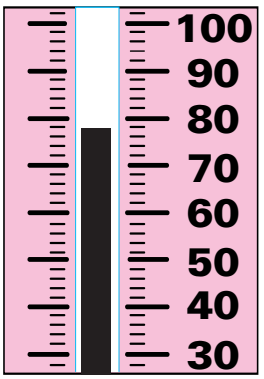
_____ °



_____ °

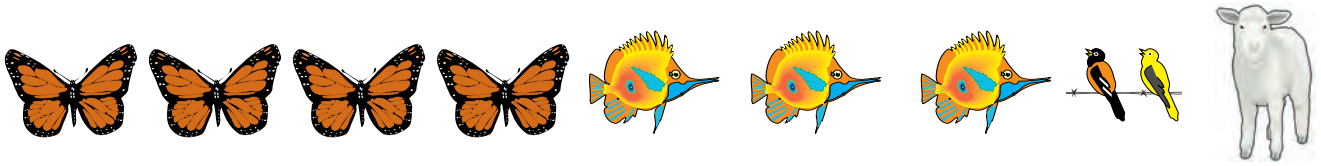


_____ °



_____ °

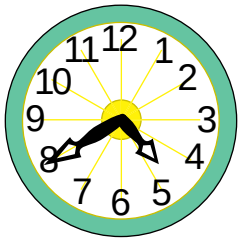
2. Write the ratio.



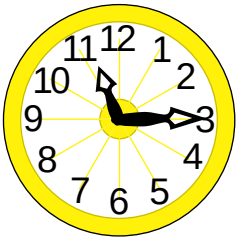
birds to fish _____ : _____ butterflies to lambs _____ : _____

butterflies and birds to fish and lambs _____ : _____

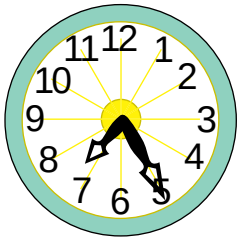
3. Write the correct time.



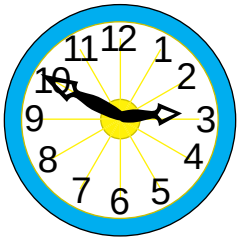
_____ : _____



_____ : _____



_____ : _____



_____ : _____

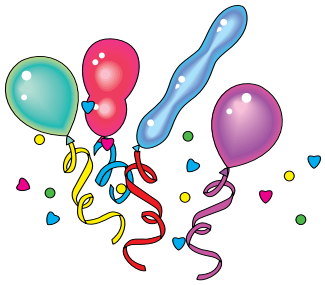
4. Write ones', tens', hundreds', or thousands'.

2,483 has a 8 in the _____ place.

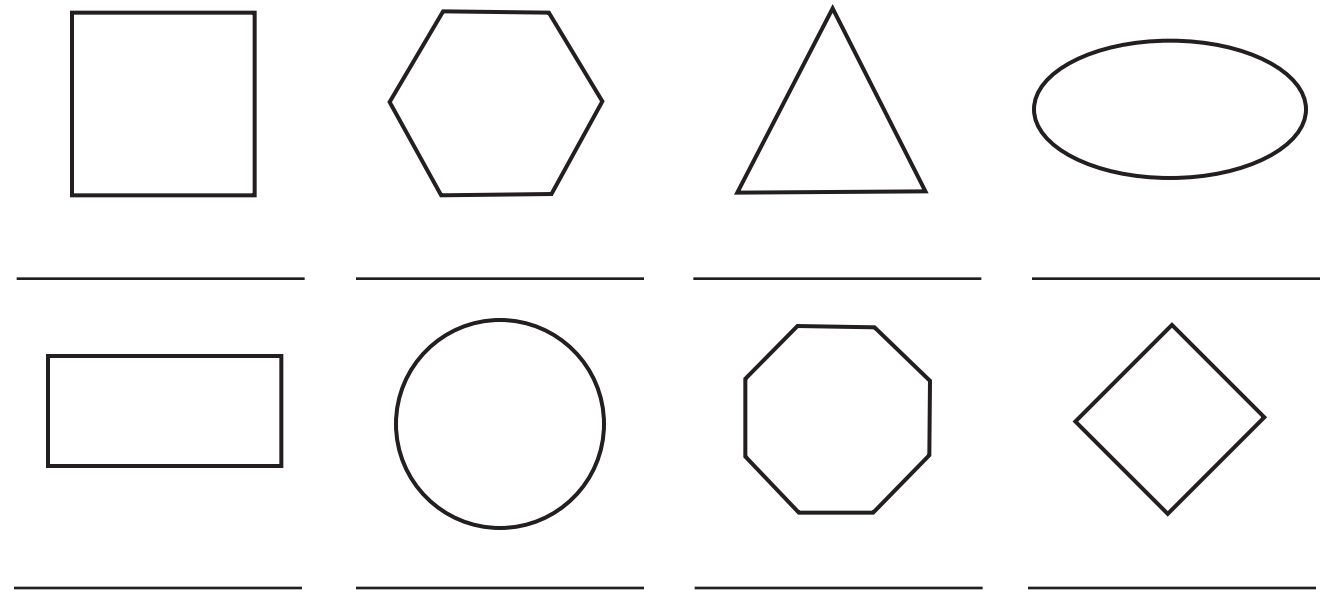
2,483 has a 2 in the _____ place.

9,048 has a 8 in the _____ place.

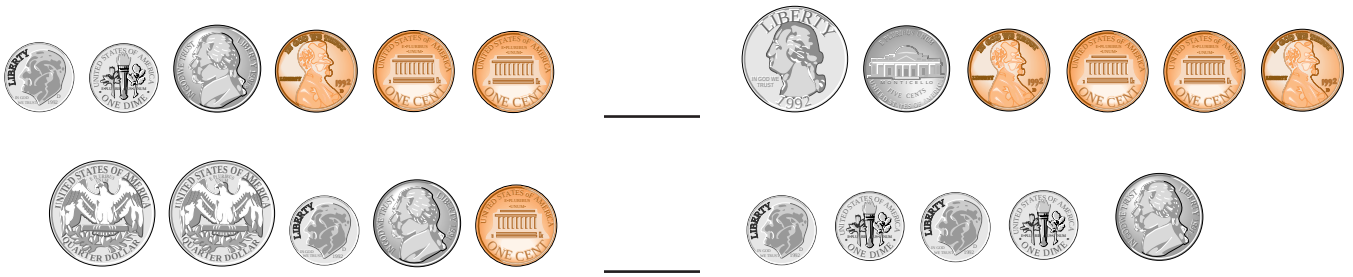
9,048 has a 0 in the _____ place.



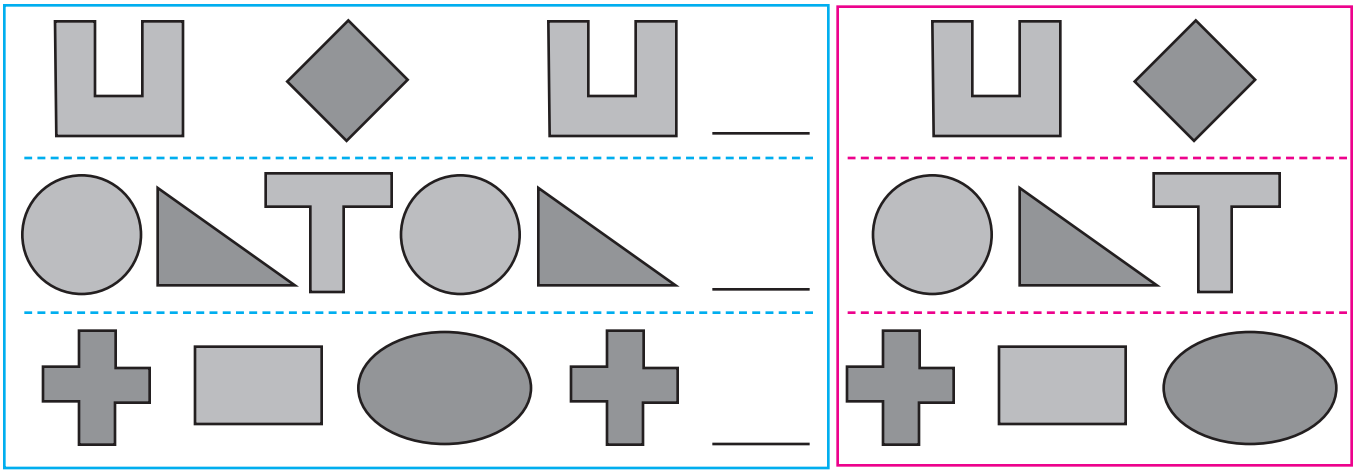
5. Name the shape. Draw a line of symmetry for each shape.



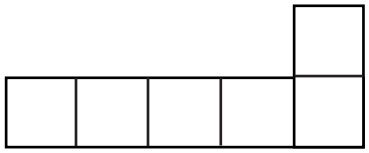
6. Write < or >.



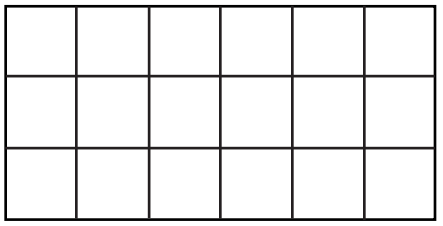
7. Circle the next picture in sequence.



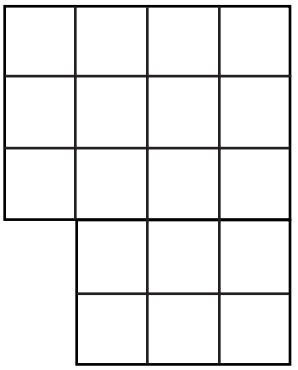
8. Find the area.



_____ square units

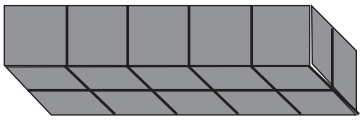


_____ square units

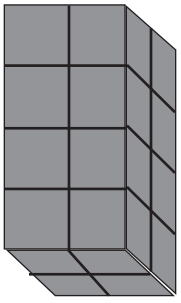


_____ square units

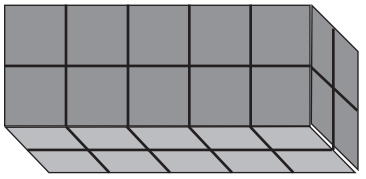
9. Find the volume.



_____ **cubic units**

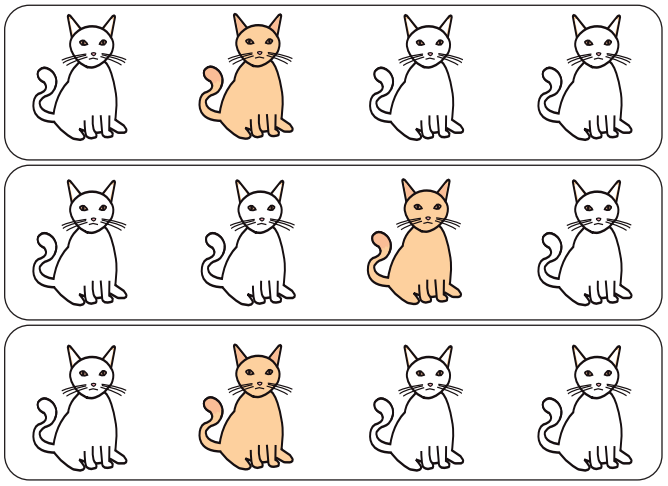


_____ **cubic units**

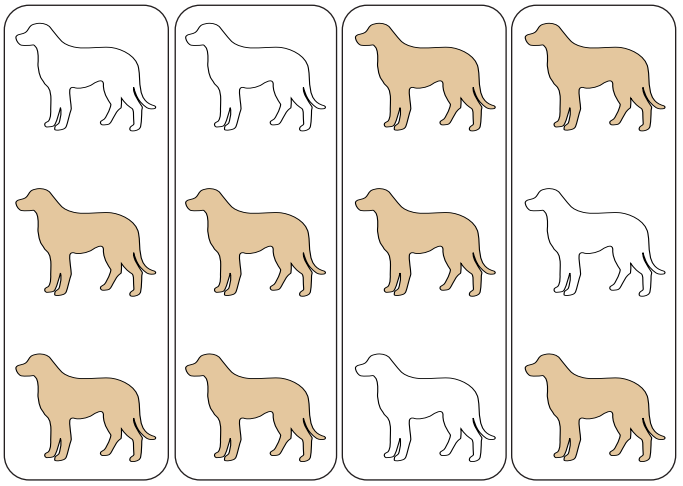


_____ **cubic units**

10. Write what the shaded fractional part of the whole equals.



_____ of _____ = _____



_____ of _____ = _____

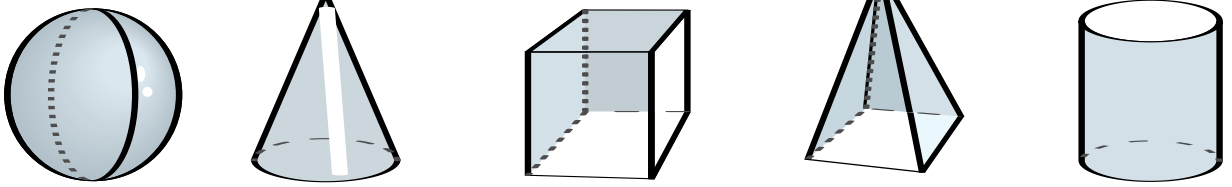
11. Find the sum and difference.

5,145	3,664	4,573	8,902	9,731	6,924
+ 3,369	+ 3,188	+ 5,157	- 7,837	- 4,652	- 1,539

12. Find the product.

3	7	5	6	8	3	2	4	3
x 3	x 0	x 9	x 6	x 4	x 4	x 9	x 4	x 7

13. Write the name of the solid.



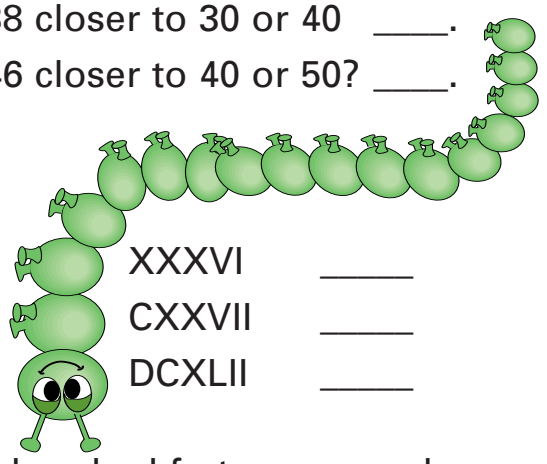
_____ _____ _____ _____ _____

14. Write the answers.

Is 23 closer to 20 or 30? ____.
Is 51 closer to 50 or 60? ____.
Is 87 closer to 80 or 90 ____.
Is 62 closer to 60 or 70? ____.
Is 38 closer to 30 or 40 ____.
Is 46 closer to 40 or 50? ____.

15. Write the Arabic numbers.

CCCXCV _____
LXXIV _____
DCCCLXIX _____
XXXVI _____
CXXVII _____
DCXLII _____



16. In the rose garden, there were seven hundred forty-seven red rose buds. There were five hundred eighty-three yellow rose buds. How many more red rose buds were there than yellow?

Mr. Nelson asked mother to buy 15 bunches of carrots for $ 4.83. Mother bought 12 heads of lettuce for $ 8.36. Junior asked his mother to buy tomatoes for $ 2.62. How much would mother's bill be for the three items?

1. Write the problems vertically. Find the sum.

32 + 7,861 + 504 = 4,267 + 86 + 351 = 736 + 2,815 + 49 =

2. Reduce the fractions.

$\frac{12}{15} = \frac{12 \div \square}{15 \div \square} = \frac{\square}{\square}$ $\frac{18}{24} = \frac{18 \div \square}{24 \div \square} = \frac{\square}{\square}$ $\frac{25}{40} = \frac{25 \div \square}{40 \div \square} = \frac{\square}{\square}$

3. Find the difference and check.

5,970	8,075	8,900	9,007	6,080	6,900	4,006
- 2,156	- 4,341	- 5,341	- 5,921	- 1,577	- 3,781	- 2,453

4. Write < or >.

378,614 ____ 378,914 940,156 ____ 940,153 537,298 ____ 537,289

259,076 ____ 295,076 861,439 ____ 864,139 713,928 ____ 613,928

5. Find the product.

431 x 10 = _____ 4,006 x 0 = _____

71 x 1,000 = _____ 54 x 100 = _____

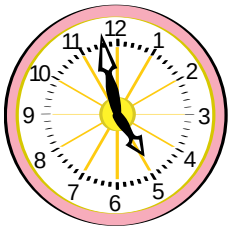
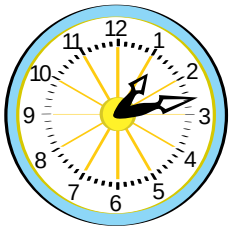
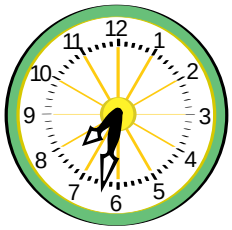
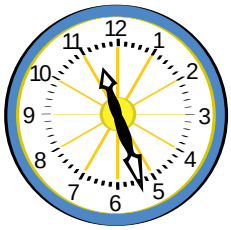
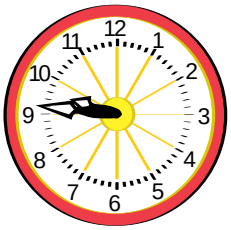
258 x 1,000 = _____ 1,278 x 10 = _____

369 x 100 = _____ 300,010 x 0 = _____

6. Find the quotient.

$4\overline{)11}$ $5\overline{)38}$ $3\overline{)25}$ $7\overline{)23}$ $8\overline{)46}$ $9\overline{)33}$

7. Write the correct time.

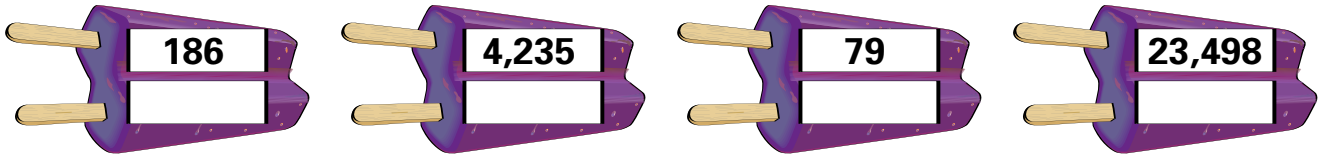






_____ _____ _____ _____ _____

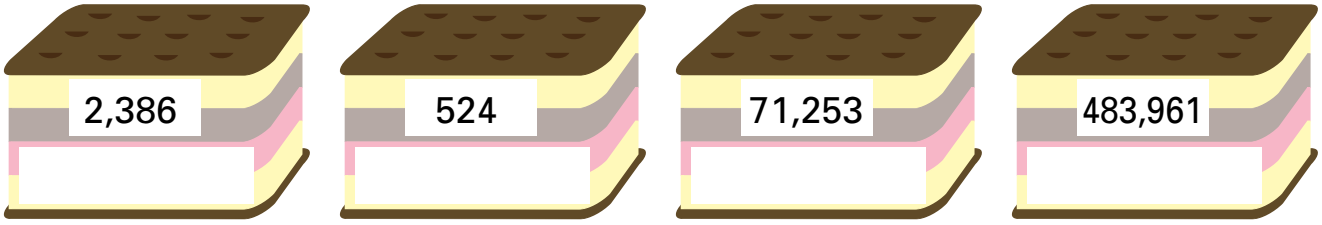
8. Write = or ≠.

$\frac{4}{6} \square \frac{10}{15}$ $\frac{2}{10} \square \frac{5}{25}$ $\frac{3}{4} \square \frac{9}{16}$ $\frac{10}{16} \square \frac{5}{7}$

9. Round the numbers to the nearest 10.



10. Round the numbers to the nearest 100.



11. Joseph had 8 guppies, 3 red swordtails, 5 black mollies, and 6 goldfish in his fish tank.

What is the ratio of guppies to swordtails? _____

What is the ratio of goldfish to black mollies? _____

How many fish were in the tank? _____

What is the ratio of black mollies to all the fish? _____

12. Write the place value of the 8 in each number.

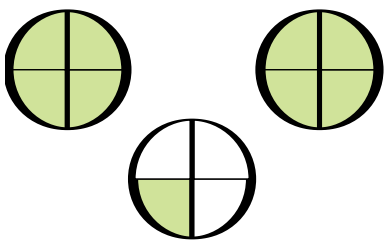
351,643,587 _____ 843,721,546 _____

529,823,146 _____ 936,295,810 _____

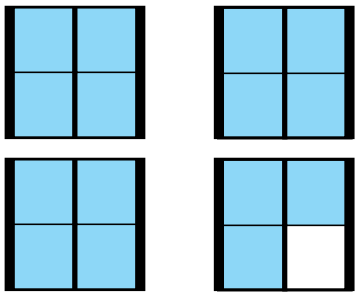
415,498,712 _____ 275,467,058 _____

168,152,364 _____ 486,251,739 _____

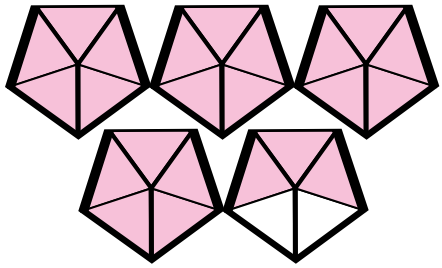
13. Write the mixed number illustrated.



_____



_____



_____

14. Solve the equations.

$n + 4 = 10$ $n + 10 = 24$ $n - 8 = 16$ $n - 4 = 12$

15. Find the sum.

$\frac{3}{8} + \frac{4}{8} =$ $\frac{2}{7} + \frac{4}{7} =$ $\frac{5}{9} + \frac{2}{9} =$ $\frac{7}{10} + \frac{1}{10} =$

16. Find the difference.

$\frac{7}{8}$	$\frac{4}{5}$	$\frac{6}{9}$	$\frac{5}{7}$	$\frac{8}{10}$	$\frac{3}{6}$	$\frac{9}{12}$	$\frac{7}{11}$
$-\frac{3}{8}$	$-\frac{2}{5}$	$-\frac{1}{9}$	$-\frac{4}{7}$	$-\frac{5}{10}$	$-\frac{2}{6}$	$-\frac{6}{12}$	$-\frac{2}{11}$
____	____	____	____	____	____	____	____

17. Subtract 100 from each number.

18. Find the product.

592	481	736	246	137	182
x 5	x 7	x 4	x 8	x 3	x 6
____	____	____	____	____	____

19. Karen spent 3 nights at the Sunset Hotel in Chicago. She paid $ 78.00 a night. How much did it cost her to stay at the hotel?

Frank saw a bicycle for $ 79.86. Two weeks later it was on sale for $65.98. How much would he save if he bought it while it was on sale?

1. Find the quotient.

$4\overline{)\$24.08}$ $2\overline{)\$2.38}$ $3\overline{)\$23.67}$ $11\overline{)\$26.07}$ $15\overline{)\$77.70}$

2. Estimate by rounding two-digit numbers to the 10's and three-digit numbers to the 100's.

$8\overline{)678}$ $14\overline{)896}$ $87\overline{)913}$ $28\overline{)609}$ $18\overline{)792}$

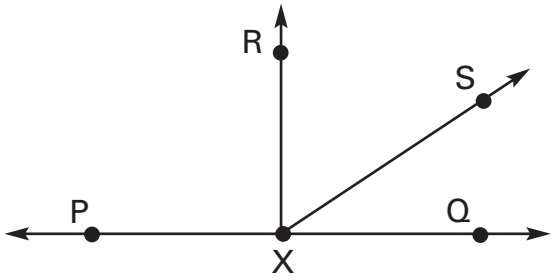
3. Draw a picture to solve the problem.

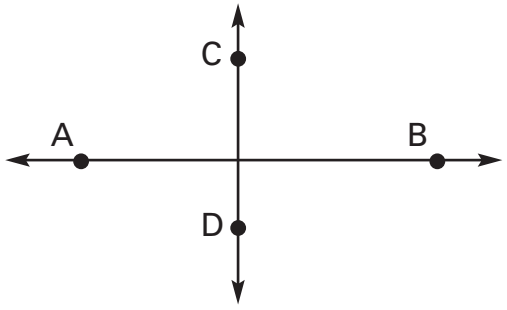
Four girls were in line for the movies. Dottie was behind Elaine. Karen was last. Tami was ahead of Elaine. Who was first in line?

4. Match. Place the appropriate letter next to the definition.

____ 1.	1665	a.	12:00 midnight to 12:00 noon.
____ 2.	BC	b.	Anno Domini–in the year of our Lord
____ 3.	AD	c.	1 hour
____ 4.	decade	d.	1 minute
____ 5.	century	e.	eight-sided figure
____ 6.	millennium	f.	3-sided figure
____ 7.	60 minutes	g.	1,000 years
____ 8.	24 hours	h.	10 years
____ 9.	60 seconds	i.	Before Christ
____10.	AM	j.	17th century
____11.	pentagon	k.	five-sided figure
____12.	hexagon	l.	1 day
____13.	octagon	m.	100 years
____14.	triangle	n.	four-sided figure
____15.	quadrilateral	o.	six-sided figure

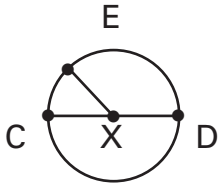
5.





1. Name two angles that are acute. _____
2. Name two angles that are right angles. _____
3. Name two lines that are parallel. _____
4. Name two lines that are perpendicular. _____

6.



1. Name the circle. _____
2. The diameter is 4 cm. What is the length of $\overline{XD}$? _____
3. What is the length of $\overline{CX}$? _____
4. Name the diameter. _____
5. Circle M is twice as big as the circle pictured above. What is the diameter of Circle M? ____

7. **Draw a similar and congruent figure. Draw the lines of symmetry.**

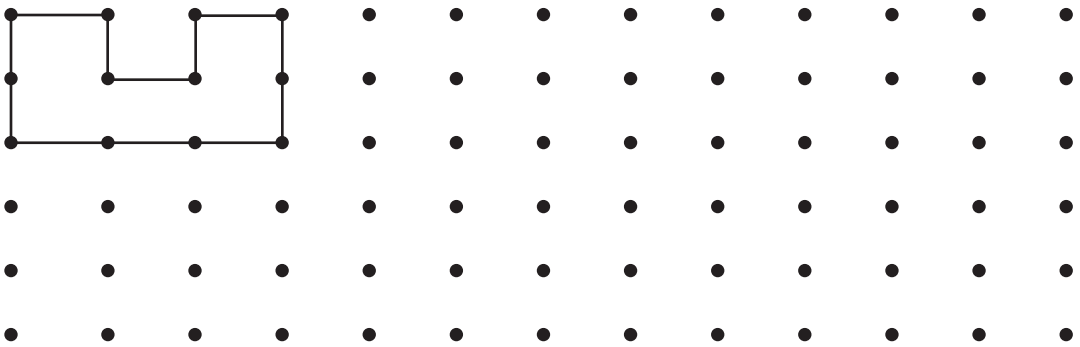
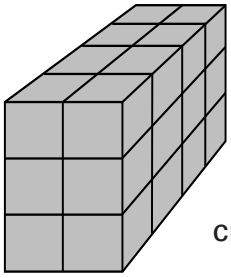


Figure A

10 inches

20 inches

Figure B



cm

8. **Find the perimeter and area of figure A. Find the volume of figure B.**

9. **Give the missing numerator or denominator.**

Find the equal ratios by multiplying.

$\frac{3}{9} = \frac{9}{n}$ $\frac{2}{3} = \frac{28}{n}$ $\frac{6}{8} = \frac{n}{64}$ $\frac{1}{9} = \frac{9}{n}$

10. **Find the sum or difference. Make sure the answer is in lowest terms.**

$\frac{2}{3} + \frac{1}{3} =$ _____ $\frac{8}{10} - \frac{4}{10} =$ _____ $\frac{9}{12} - \frac{3}{12} =$ _____

$\frac{5}{7} + \frac{1}{7} =$ _____ $\frac{7}{14} + \frac{6}{14} =$ _____ $\frac{7}{9} + \frac{6}{9} =$ _____

11. **Find the sum. Make sure the answer is in lowest terms.**

$\frac{1}{4} + \frac{2}{8} =$ _____ $\frac{5}{15} + \frac{1}{3} =$ _____ $\frac{6}{10} + \frac{1}{5} =$ _____

$\frac{2}{12} + \frac{2}{4} =$ _____ $\frac{2}{3} + \frac{1}{12} =$ _____ $\frac{2}{5} + \frac{1}{3} =$ _____

12. **Find the sum or difference. Reduce to lowest terms.**

$5\frac{2}{6}$	$12\frac{3}{7}$	$9\frac{5}{6}$	$38\frac{7}{12}$	$16\frac{5}{9}$
$+ 3\frac{1}{6}$	$+ 16\frac{2}{7}$	$- 9\frac{2}{6}$	$- 28\frac{3}{12}$	$- \frac{5}{9}$

13. **< , > , or =.**

4.9 ◯ 4.1 1.9 ◯ 1.90 9.03 ◯ 9.33 0.06 ◯ 0.060

14. **Find the sum or difference.**

48.902	465.001	30.956	7. 76
+ 4.342	+ 233.021	− 29.824	− 0. 94

15. **Complete.**

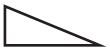
Kilo	Hecto	Deka	Basic Unit (Meter, Liter or Gram)	deci	centi	milli

890 mm = _____ cm 78.89 m = _____ cm

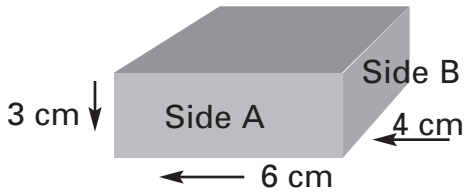
587 mm = _____ m 8.54 Km = _____ dm

656 m = _____ mm 7.001 m = _____ cm

1. Match the most common definition with each picture.

1.	Rhombus	a.	
2.	Square	b.	
3.	Equilateral Triangle	c.	
4.	Scalene Triangle	d.	
5.	Isosceles Triangle	e.	
6.	Pentagon	f.	
7.	Hexagon	g.	
8.	Chord	h.	
9.	Octagon	i.	
10.	Prism	j.	

2. Find the surface area of the figure.



Use the picture above to answer the following questions.

1. Find the area of Side A.

2. Find the area of Side B.

3. Find the surface area of the box.

   Front _____ x 2 _____

   Top _____ x 2 _____

   Side _____ x 2 _____

   Total _____

3. Write the sum or difference.

$3\frac{1}{4} - 2\frac{5}{16}$ $\quad$ $7\frac{3}{8} - 4\frac{3}{4}$ $\quad$ $16\frac{2}{3} - 9\frac{7}{9}$ $\quad$ $27\frac{1}{3} - 12\frac{5}{8}$

$8\frac{4}{7} + 12\frac{2}{3}$ $\quad$ $13\frac{6}{8} + 4\frac{1}{2}$ $\quad$ $55\frac{4}{5} + 47\frac{7}{8}$ $\quad$ $29\frac{6}{9} + 99\frac{2}{3}$

4. Find the fraction of each number

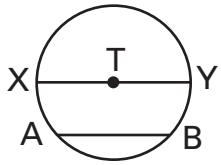
$\frac{3}{4}$ of 28 $\quad$ $\frac{1}{7}$ of 63 $\quad$ $\frac{5}{8}$ of 32 $\quad$ $\frac{4}{9}$ of 81

5. Multiply or divide. Write the answers in simplest terms.

$\frac{2}{5} \times \frac{6}{7}$ $\quad$ $\frac{5}{8} \times \frac{5}{12}$ $\quad$ $1\frac{5}{9} \times \frac{2}{3}$ $\quad$ $2\frac{3}{4} \times 2\frac{1}{2}$

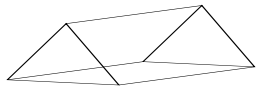
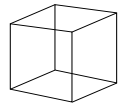
$\frac{1}{3} \div \frac{4}{7}$ $\quad$ $\frac{2}{5} \div \frac{1}{3}$ $\quad$ $6 \div \frac{2}{3}$ $\quad$ $\frac{4}{9} \div 5$

6. **Use the circle to answer the following questions.**

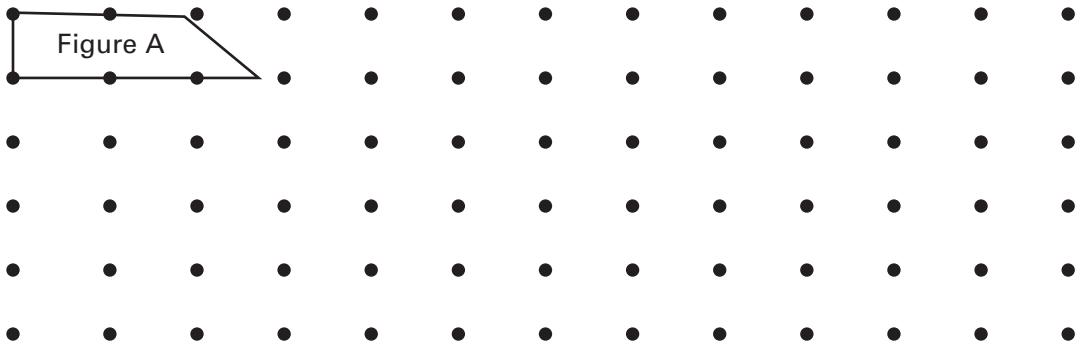


1. Name the diameter.
2. Name a chord other than the diameter.
3. Name a radius.
4. If the diameter is 6 cm, what is the radius?

7. **Define the figure and tell the number of faces, edges, and vertices. You may choose from the following names: rectangular pyramid, triangular pyramid, hexagonal pyramid, triangular prism, or cube.**

			
Name of Figure			
Faces			
Edges			
Vertices			

8. **Draw a figure that is congruent to Figure A. Draw a figure that is similar to Figure A.**



9. **Write each product.**

8.9	0.81	1.32	12.9	21.9
x 6	x 3	x 0.5	x 4.2	x 1.4

10. **Write each quotient. Write an extra dividend in the quotient when needed.**

$9\overline{)262.17}$ $4\overline{)464.44}$ $5\overline{)157.8}$ $2\overline{)48.95}$

11. **Complete the table.**

Fraction	Decimal	Percent
$\frac{14}{100}$	0.14	14%
$\frac{62}{100}$		
		8%
	0.19	
$\frac{80}{100}$		
	0.75	

12. **Find the percent of each number.**

20% of 100 15% of 60 10% of 70 25% of 60

13. **Find the range, mean, and mode for the set of numbers.**

13, 18, 61, 11, 47, 11, 84

range _____ mean _____ mode _____

GRADE 2 Horizons Math Readiness Evaluation **Student Score_____**

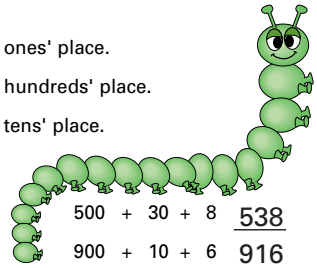
Count each individual answer as a separate point except in Student Activity Twelve where only the numbers in the boxes, not the circled numbers, are counted. The total for the test is 100 points. The student should achieve a score of 70 or more points to be ready to begin second grade. Be sure to note the areas of weakness even for those who score over 70 points.

1. Write the numbers.

452 has a 2 in the ones' place.

918 has a 9 in the hundreds' place.

763 has a 6 in the tens' place.



2. Write the numbers.

495 = 400 + 90 + 5 500 + 30 + 8 538

817 = 800 + 10 + 7 900 + 10 + 6 916

3. Write the correct time.


5 :00


6 :45


3 :30


10: 15

4. Write the value of each coin.


10 ¢


5 ¢


1 ¢

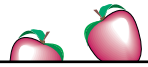

25 ¢


1 ¢


5 ¢


25 ¢


10 ¢



5. Add.

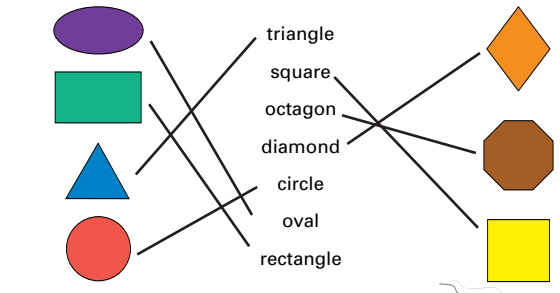
29	35	44	13	18	59	37	53
+33	+55	+29	+67	+33	+29	+87	+49
62	90	73	80	51	88	124	102
38	63	58	47	92	97	43	42
+88	+99	+42	+77	+19	+88	+27	+77
126	162	100	124	111	185	70	119

6. Write = or ≠ between each set.

3 + 7 = 10 7 + 9 = 16 5 + 9 ≠ 13

4 + 9 ≠ 12 5 + 3 ≠ 9 6 + 8 = 14

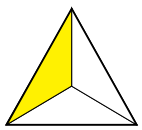
7. Draw a line to match the shape to its name.



8. Subtract.

11	16	17	12	15	13	11	13
- 9	- 8	- 7	- 6	- 8	- 7	- 3	- 6
2	8	10	6	7	6	8	7
12	14	17	11	15	13	18	16
- 5	- 8	- 8	- 4	- 7	- 4	- 9	- 8
7	6	9	7	8	9	9	8
68	99	72	33	78	55	57	78
-46	-35	-52	-20	-24	-43	-24	-27
22	64	20	13	54	12	33	51

9. Write the fractional part that is shaded.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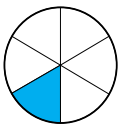
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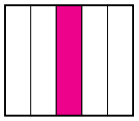
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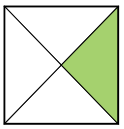
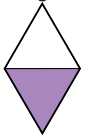
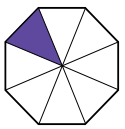

1/4


1/2


1/8

10. How many eggs are in a dozen? 12

11. Write < or > between each set.

135 < 144 116 < 173

173 > 167 183 < 200

12. Circle every third number after 7.

(7)	8	9	(10)	11	12	(13)	14	15
(16)	17	18	(19)	20	21	(22)	23	24
(25)	26	27	(28)	29	30	(31)	32	33

Write the circled numbers on the blanks.

7 10 13 16 19 22 25 28 31

13. Write the value of each set of coins.


48 ¢


56 ¢

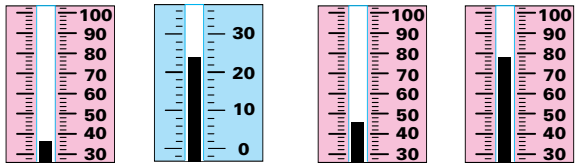

42 ¢


87 ¢

GRADE 3 Horizons Math Readiness Evaluation **Student Score_____**

Count each individual answer as a separate point. The total for the test is 70 points. The student should achieve a score of 50 or more points to be ready to begin third grade. Be sure to note the areas of weakness even for those who score over 50 points.

1. Write the temperature.



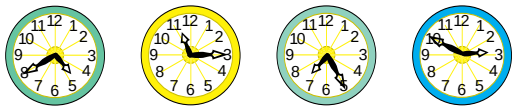
36 ° 24 ° 46 ° 78 °

2. Write the ratio.

birds to fish 2 : 3 butterflies to lambs 4 : 1

butterflies and birds to fish and lambs 6 : 4

3. Write the correct time.

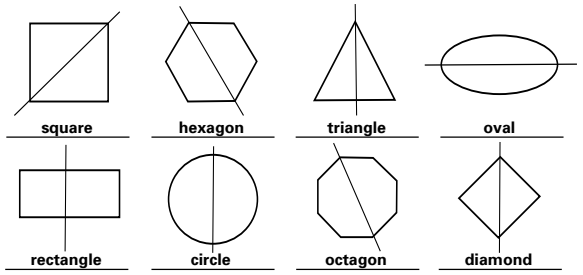


4 : 40 11 : 15 7 : 25 2 : 50

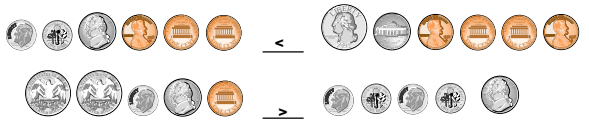
4. Write ones', tens', hundreds', or thousands'.

2,483 has a 8 in the tens' place.
2,483 has a 2 in the thousands' place.
9,048 has a 8 in the ones' place.
9,048 has a 0 in the hundreds' place.

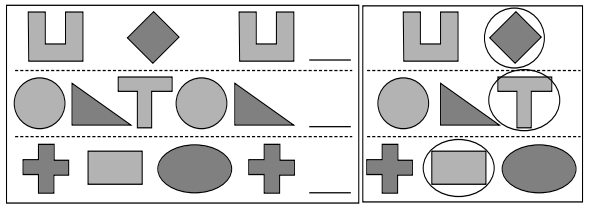
5. Name the shape. Draw a line of symmetry for each shape.



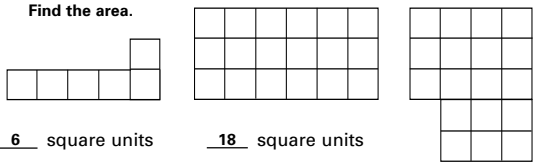
6. Write < or >.



7. Circle the next picture in sequence.

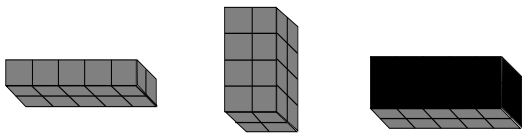


8. Find the area.



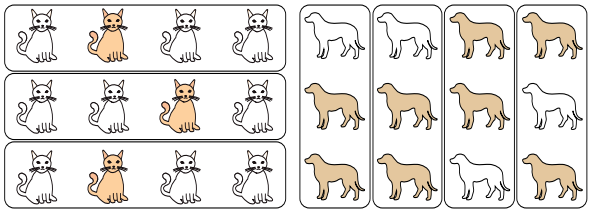
6 square units 18 square units 18 square units

9. Find the volume.



10 cubic units 16 cubic units 20 cubic units

10. Write what the shaded fractional part of the whole equals.



1/4 of 12 = 3 2/3 of 12 = 8

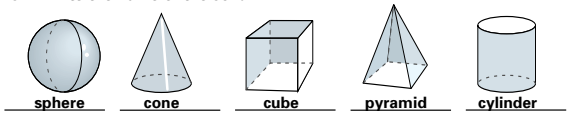
11. Find the sum and difference.

5,145 + 3,369 = 8,514	3,664 + 3,188 = 6,852	4,573 + 5,157 = 9,730	8,902 - 7,837 = 1,065	9,731 - 4,652 = 5,079	6,924 - 1,539 = 5,385

12. Find the product.

3 x 3 = 9	7 x 0 = 0	5 x 9 = 45	6 x 6 = 36	8 x 4 = 32	3 x 4 = 12	2 x 9 = 18	4 x 4 = 16	3 x 7 = 21

13. Write the name of the solid.

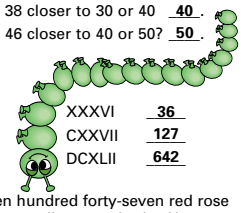


14. Write the answers.

Is 23 closer to 20 or 30? 20. Is 62 closer to 60 or 70? 60.
Is 51 closer to 50 or 60? 50. Is 38 closer to 30 or 40 40.
Is 87 closer to 80 or 90 90. Is 46 closer to 40 or 50? 50.

15. Write the Arabic numbers.

CCCXCV 395 XXXVI 36
LXXIV 74 CXXVII 127
DCCCLXIX 869 DCXLII 642



16. In the rose garden, there were seven hundred forty-seven red rose buds. There were five hundred eighty-three yellow rose buds. How many more red rose buds were there than yellow? **164**

Mr. Nelson asked mother to buy 15 bunches of carrots for $ 4.83. Mother bought 12 heads of lettuce for $ 8.36. Junior asked his mother to buy tomatoes for $ 2.62. How much would mother's bill be for the three items? **$15.81**

GRADE 4 Horizons Math Readiness Evaluation **Student Score_____**

Count each individual answer as a separate point. The total for the test is 102 points. The student should achieve a score of 72 or more points to be ready to begin fourth grade. Be sure to note the areas of weakness even for those who score over 72 points.

1.
$$\begin{array}{r} 32 \\ 7{,}861 \\ +\ 504 \\ \hline 8{,}397 \end{array} \qquad \begin{array}{r} 4{,}267 \\ 86 \\ +\ 351 \\ \hline 4{,}704 \end{array} \qquad \begin{array}{r} 736 \\ 2{,}815 \\ +\ 49 \\ \hline 3{,}600 \end{array}$$

2. $\frac{3}{3}$ $\frac{4}{5}$ $\frac{6}{6}$ $\frac{3}{4}$ $\frac{5}{5}$ $\frac{5}{8}$

(answers can vary)

3. 3,814 3,734 3,559 3,086 4,503 3,119 1,553

4. < > >
< < >

5.
$$\begin{array}{rr} 4{,}310 & 0 \\ 71{,}000 & 5{,}400 \\ 258{,}000 & 12{,}780 \\ 36{,}900 & 0 \end{array}$$

6. 2 r 3 7 r 3 8 r 1 3 r 2 5 r 6 3 r 6

7. 4:58 1:13 7:32 11:27 9:46

8. = = ≠ ≠

9. 190 4,240 80 23,500

10. 2,400 500 71,300 484,000

11. 8 : 3
6 : 5
22
5 : 22

12. tens hundred millions
hundred thousands hundreds
thousands ones
millions ten millions

13. $2\frac{1}{4}$ $3\frac{3}{4}$ $4\frac{3}{5}$

14. n = 6; n = 14; n = 24; n = 16

15. $\frac{7}{8}$ $\frac{6}{7}$ $\frac{7}{9}$ $\frac{8}{10}$

16. $\frac{4}{8}$ $\frac{2}{5}$ $\frac{5}{9}$ $\frac{1}{7}$

$\frac{3}{10}$ $\frac{1}{6}$ $\frac{3}{12}$ $\frac{5}{11}$

17. 2,286 89 57,363 986,654

18.
$$\begin{array}{rrr} 2{,}960 & 3{,}367 & 2{,}944 \\ 1{,}968 & 411 & 1{,}092 \end{array}$$

19. $234.00 $13.88

GRADE 5 Horizons Math Readiness Evaluation **Student Score_____**

Count each individual answer as a separate point. The total for the test is 81 points. The student should achieve a score of 57 or more points to be ready to begin fifth grade. Be sure to note the areas of weakness even for those who score over 57 points.

1. \$6.02; \$1.19; \$7.89; \$2.37; \$5.18

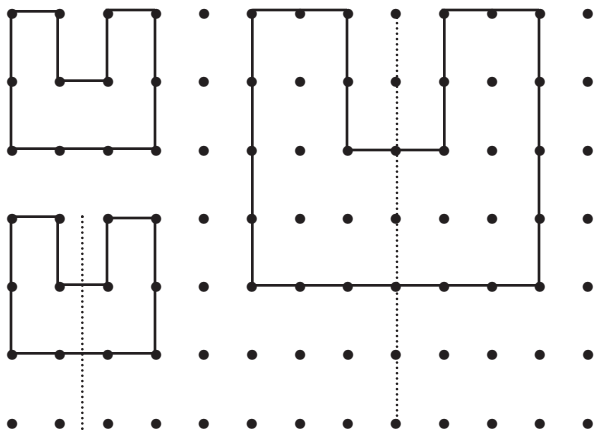
2. 70; 90; 10; 20; 40

3. Tami

4. 1. j
   2. i
   3. b
   4. h
   5. m
   6. g
   7. c
   8. l
   9. d
   10. a
   11. k
   12. o
   13. e
   14. f
   15. n

5. 1. ∠RXS, ∠ SXQ
   2. ∠ RXQ, ∠ RXP
   3. PQ and AB
   4. AB and CD or PQ and RX

6. 1. Circle X
   2. 2 cm
   3. 2 cm
   4. CD
   5. 8 cm

7. 

8. Figure A – perimeter 60 in; area 200 in^2
   Figure B – 24 cm^3

9. 27; 42; 48; 81

10. $\frac{3}{3} = 1$; $\frac{4}{10} = \frac{2}{5}$; $\frac{6}{12} = \frac{1}{2}$
    $\frac{6}{7}$; $\frac{13}{14}$; $\frac{13}{9} = 1\frac{4}{9}$

11. $\frac{4}{8} = \frac{1}{2}$; $\frac{10}{15} = \frac{2}{3}$; $\frac{8}{10} = \frac{4}{5}$
    $\frac{8}{12} = \frac{2}{3}$; $\frac{9}{12} = \frac{3}{4}$; $\frac{11}{15}$

12. 8 3/6 = 8 1/2; 28 5/7; 3/6 = 1/2;
    10 4/12 = 10 1/3; 16

13. > = < =

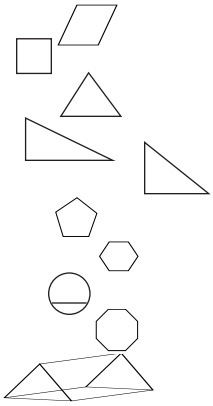
14. 53.244; 698.022; 1.132; 6.82

15 89.0; 7,889
    0.587; 85,400
    656,000; 700.1

GRADE 6 Horizons Math Readiness Evaluation **Student Score_____**

Count each individual answer as a separate point. The total for the test is 83 points. The student should achieve a score of 59 or more points to be ready to begin sixth grade. Be sure to note the areas of weakness even for those who score over 59 points.

1. 1. Rhombus –
   2. Square –
   3. Equilateral Triangle –
   4. Scalene –
   5. Isosceles –
   6. Pentagon –
   7. Hexagon –
   8. Chord –
   9. Octagon –
   10. Prism –



2. 1. 18 cm^2
   2. 12 cm^2
   3. Front $\underline{18\ cm^2}$ x 2 $\underline{36\ cm^2}$
      Top $\underline{24\ cm^2}$ x 2 $\underline{48\ cm^2}$
      Side $\underline{12\ cm^2}$ x 2 $\underline{24\ cm^2}$
      Total 108 cm^2

3. $\frac{15}{16}$ $2\frac{5}{8}$ $6\frac{8}{9}$ $14\frac{17}{24}$

   $20\frac{26}{21} = 21\frac{5}{21}$ $17\frac{10}{8} = 18\frac{2}{8} = 18\frac{1}{4}$

   $102\frac{67}{40} = 103\frac{27}{40}$

   $128\frac{12}{9} = 129\frac{3}{9} = 129\frac{1}{3}$

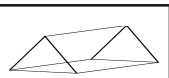
4. 21 9 20 36

5. $\frac{12}{35}$ $\frac{25}{96}$ $\frac{28}{27} = 1\frac{1}{27}$ $\frac{55}{8} = 6\frac{7}{8}$

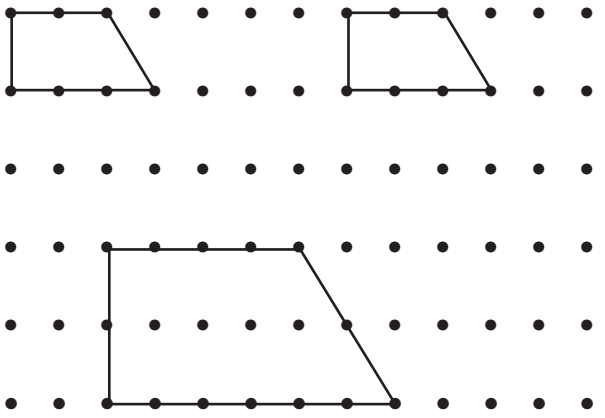
   $\frac{7}{12}$ $\frac{6}{5} = 1\frac{1}{5}$ $\frac{18}{2} = 9$ $\frac{4}{45}$

6. 1. $\overline{XY}$
   2. $\overline{AB}$
   3. $\overline{TX}$ or $\overline{TY}$
   4. 3 cm

7.

			
Name of Figure	Triangular prism	Hexagonal pyramid	cube
Faces	5	7	6
Edges	9	12	12
Vertices	6	7	8

8.



9. 53.4 2.43 0.66 54.18 30.66

10. 29.13 116.11 31.56 24.475

11.

Fraction	Decimal	Percent
$\frac{14}{100}$	0.14	14%
$\frac{62}{100}$	0.62	62%
$\frac{8}{100}$	0.08	8%
$\frac{19}{100}$	0.19	19%
$\frac{80}{100}$	0.80	80%
$\frac{75}{100}$	0.75	75%

12. 20 9 7 15

13. range = 73
    mean = 35
    mode = 11