Vertcy Learning

Placement Evaluation

To determine readiness for

SEVENTH OR EIGHTH GRADE

Please Fill In This Form Completely

Name of child _____ Boy/Girl _____ Age _____ Month _____/ Day _____/ Year of birth _____

Current grade _____ Date student will finish _____ Grade level requesting (grades 3–8) _____

Street address _____ City _____ State _____ Zip/Postal Code _____

Name of parent/guardian _____ Name of Learning Guide/teacher/tutor _____

Daytime phone (_____) _____ - _____ Email address _____

Vertcy Course Enrollment

☐ I am enrolling in Vertcy Learning's Complete Program, which includes all subjects (Complete all Parts).

☐ I am enrolling in Reading, which includes Phonics/Spelling & Grammar/Composition (Complete Parts I, II, III, VI).

☐ I am enrolling in Phonics/Spelling (Complete Parts I, II, VI).

☐ I am enrolling in Grammar/Composition (Complete Parts I, II, III).

☐ I am enrolling in Literature (Complete Parts I, IV).

☐ I am enrolling in Math (Complete Parts I and V).

Directions for Submitting Placement Materials

Before submitting your Vertcy Placement Evaluation please check which components your student has completed. Refer to the section above for required components. The Placement Evaluations and Family Questionnaire can be sent to Vertcy Learning by mail or via e-mail; please do not fax any materials. Placement decisions will be made within three to five business days after Vertcy receives the required pieces.

☐ Part I. Family Questionnaire
☐ Part II. Composition
☐ Part III. Grammar
☐ Part IV. Reading Comprehension
☐ Part V. Mathematics
☐ Part VI. Online Portion

SUBMITTING THE TEST: Mail or e-mail the completed test using the directions below.

MAIL: Calvert Education Services, Vertcy Learning Placement Evaluation
10713 Gilroy Road, Suite B • Hunt Valley, MD 21031

E-MAIL: Please scan the test and questionnaire pages as a single PDF file. Be sure that the writing is clear and dark enough to produce a clearly scanned document. Attach this to your e-mail and type "Vertcy Learning Placement" in the subject line of the message. Send your e-mail to placement@calvertservices.org.

IMPORTANT: DO NOT FAX THE TEST.

CALVERT
EDUCATION

Part I. Family Questionnaire

Thank you for your interest in Verticy Learning's program for students with language-based learning differences. Due to the individualized nature of this program, please answer the following questions so our education specialists can gain a better understanding of your child's needs in order to offer appropriate support that can contribute to more effective teaching and communication.

WILL YOU BE ENROLLING THROUGH A CORPORATION, GOVERNMENT AGENCY, CHURCH, SCHOOL DISTRICT OR OTHER GROUP?

☐ YES ☐ NO IF YES, PLEASE SPECIFY: _____

ABOUT YOUR CHILD

Please list your child's hobbies, interests, pets, and/or extra-curricular activities:

_____

_____

_____

Describe what you observe or know about your child that motivated you to enroll in the Verticy Learning program:

_____

_____

_____

Please rate your child's level of ability from 1 through 5 in the following areas:
(1 – extremely low; 5 – extremely high)

___ Expresses self orally

___ Has a strong attention span

___ Is able to focus on work for a lengthy duration of time, 3–4 hours

___ Has a strong memory

___ Has good listening comprehension skills

In what areas of study does your child struggle? Please select all that apply:

☐ Math concepts

☐ Spelling

☐ Reading

☐ Writing

Part I. Family Questionnaire

Does anyone else in your family experience learning differences in math, spelling, reading, or writing, or has anyone been diagnosed with a learning difference?

☐ Yes ☐ No

If yes, please list the family member(s) by name, their relationship to this child, and describe their learning difference(s):

_____

_____

_____

How did your child receive his/her education this past year?

☐ Homeschool ☐ Virtual school

☐ Public school ☐ Charter school

☐ Private school

If your child had a number of educational settings, please list them and provide the duration of each:

_____

_____

_____

Has your child ever received special education services or academic tutoring?

☐ Yes ☐ No

If yes, please describe:

_____

_____

What is the primary language spoken in the child's home? _____

List the child's siblings and ages: _____

_____

Name of Learning Guide (adult guiding lessons): _____

Relationship of Learning Guide to student: _____

How much time can the Learning Guide give daily? _____

How many children will be working with the Learning Guide? _____

SUBJECTS

Reading

Does your child enjoy having books read to him/her?

☐ Yes ☐ No ☐ Sometimes

Does your child comprehend what is being read to him/her?

☐ Yes ☐ No ☐ Sometimes

At what age did your child learn to read? _____

Does your child read for pleasure independently?

☐ Yes ☐ No ☐ Sometimes

If yes or sometimes, what type of books or magazines does your child prefer? _____

_____

Does your child comprehend what he/she is reading independently?

☐ Yes ☐ No ☐ Sometimes

Writing

Is your child…?

☐ Right-handed ☐ Left-handed ☐ Mixed

Does your child write in…?

☐ manuscript ☐ *cursive* ☐ Combination of both

Is your child's handwriting…?

☐ Neat and easy to read

☐ Legible but not very neat

☐ Illegible — difficult to read

Does your child have keyboarding skills?

☐ Yes ☐ No

If yes, how often and for what purpose does your child use the computer to communicate with words? (i.e. composition writing, letter writing, online chatting, instant messaging) Please explain: _____

_____

_____

If no, is your child capable of typing a short paragraph on a computer? _____

Does your child have experience in writing a paragraph or composition?

☐ Yes ☐ No

If yes, does your child…? (Please check all that apply.)

☐ Enjoy writing
☐ Write in complete sentences
☐ Follow basic punctuation rules
☐ Struggle through writing assignments

If your child cannot write independently, is he/she capable of verbalizing his/her ideas?

☐ Yes ☐ No

Math

My child's grade level in Math is:

☐ Above grade level
☐ On grade level
☐ Below grade level

Do new mathematical concepts come easily to your child?

☐ Yes ☐ No

Does your child have difficulty remembering the basic math facts?

☐ Yes ☐ No

If yes, please identify with which facts he/she experiences difficulty. Please check all that apply:

☐ Addition
☐ Subtraction
☐ Multiplication
☐ Division

Thank you for completing this Family Questionnaire. Please e-mail or mail this form with the completed placement evaluation to one of the addresses below.

E-mail: placement@calvertservices.org
Mailing address: Calvert Education Services
Vertiy Learning Placement Evaluation
10713 Gilroy Road, Suite B
Hunt Valley, MD 21031

Part II. Composition

1. Write your composition on one of the subjects listed below or about the picture shown.
2. Write your composition on lined paper using a pencil.
3. Whenever possible, handwrite your composition.
4. You should use punctuation marks and capital letters where they belong.
5. Do not ask for help spelling words. Use your best thinking.
6. If you use a pre-writing organizer, please include this with the composition.
7. It is not necessary for you to have your composition edited or to write a final draft. If, however, you wish to write a final draft, remember to submit the rough draft with the final draft.
8. If you have a severe fear of writing, you may write a letter to a friend or family member, or you may send in previously written rough drafts as long as the sample reflects your current composition skills.

My Pets	**My Family**	**An Exciting Day**
My Friend	**An Interesting Trip**	**Fun on the Weekend**

HOW MUCH TIME DID YOUR STUDENT SPEND WRITING THIS COMPOSITION?

_____ HOURS _____ MINUTES

Does the time you recorded above include any or all steps of preplanning (use of an organizer, writing a rough draft, editing, and writing final draft), or does it include only the writing of the composition?

_____

_____

_____

_____

Part III. Grammar

I. Carefully read *each* of the following groups of words. Put a check mark (✓) on the line of each group of words that make a complete sentence. Watch out! Punctuation marks do not necessarily mean complete sentences.

_____ 1. The children on the baseball team.

_____ 2. The playful kittens are fun to watch.

_____ 3. The boys climbed up to the tree house quickly.

_____ 4. Each of the children.

_____ 5. Teddy is a good swimmer.

II. Draw a line (/) between the complete subject and the complete predicate in the following sentences.

Example: Yesterday, the mouse / ran up the old clock.

1. The three little kittens lost their mittens.

2. Many pretty flowers grow in May.

3. The package arrived on time.

4. Most children enjoy games.

5. Several students attended the game.

III. Underline each verb phrase.

Example: Yesterday, the mouse <u>was running</u> up the old clock.

1. The wind is blowing fiercely.

2. Motorcycles were roaring down the highway.

3. The bees have gathered the nectar.

4. Our class will study minerals.

IV. Underline all adjectives in each sentence. Do not underline the articles *a*, *an*, or *the*.

Example: Yesterday, the gray mouse ran up the old clock.

1. The tall, thin girl brought an empty basket.

2. I saw a beautiful, bright light.

3. The spotted dog ran to greet the little boy.

4. Six friends ate hamburgers at the summer picnic.

V. Underline the adverbs in each sentence.

Example: Yesterday, the mouse ran up the old clock.

1. The instructor arrived late.

2. The driver drove the bus cautiously.

3. The team will play football today.

4. The tutor easily explained the math problem.

5. The children are playing there quietly in the yard.

Part IV. Reading Comprehension

If your student is able to read the passages independently, please have them do so. If they are unable to read independently, or they begin to struggle during the assessment, read the passages and responses to the student. This will help us determine the student's listening comprehension, which is often a key factor in placing our struggling readers. Have the student fill in the circle to indicate the appropriate answer for each question. When the comprehension section is completed, please check the box to indicate whether the student read independently, or listened to the selections.

SECTION A

The little red-roofed farmhouse was very old, its chimney crooked and even the small, shuttered windows tilted at angles. A bird's nest, wispy with straw, was half hidden in the corner where the roof met the wall above a bedroom window. Nearby, a gnarled tree was still speckled with a few apples now long past ripe.

Mama and Kirsti had gone inside, but Annemarie and Ellen ran across the high-grassed meadow, through the late wildflowers. From nowhere, a gray kitten appeared and ran beside them, pouncing here and there upon imagined mice, pausing to lick its paws, and then darting off again. It pretended to ignore the girls, but looked back often to be certain that they were still there, apparently pleased to have playmates.

The meadow ended at the sea, and the gray water licked there at damp brown grass flattened by the wind and bordered by smooth heavy stones.

"I have never been this close to the sea," Ellen said.

"Of course you have. You've been to the harbor in Copenhagen a million times."

Ellen laughed. "I mean the real sea, the way it is here. Open like this – a whole world of water."

☐ Read Selection Independently ☐ Listened to Selection

1. The words "licked there at damp brown grass" mean _____ .

- ○ the sea was slowly flooding the area
- ○ the grass was dead and needed water
- ○ the sea water gently reached the meadow
- ○ the grass was dead because it had too much water

2. How is the word *speckled* used in the passage to describe the apple tree?

- ○ A large number of apples were hanging on the tree.
- ○ A small number of apples were spread over the tree.
- ○ The apples in the tree had a disease.
- ○ The apples in the tree were rotten.

3. Based on references in the story, what season is it?

- ○ winter
- ○ spring
- ○ summer
- ○ fall

4. According to the story, who saw the kitten?

- ○ Mamma and Kirsti
- ○ Ellen, Kirsti, Mamma, and Annemarie
- ○ Annemarie and Kirsti
- ○ Ellen and Annemarie

5. Why does Ellen laugh?

- ○ She is happy being so close to the sea.
- ○ She is confused about the difference between a harbor and the sea.
- ○ She sees humor in the fact that a harbor was compared to the sea.
- ○ She is embarrassed because she has not before seen the sea.

In 1598, Don Juan de Oñate (oh NYAH teh), a wealthy Spaniard, went out to settle new lands. He marched north from Central Mexico with a band of colonists, armed troops, and friars. The friars were members of a religious order who wanted to convert Native Americans to Christianity.

Over 16,000 Pueblo Indians lived in the area de Oñate claimed. The Pueblo were agricultural people with strong religious beliefs. The Spanish, however, believed the greatest kindness they could do for the Pueblo was to convert them to Christianity. To do this, the friars built missions, or church settlements, all over New Mexico. To protect the friars and their converts from the Apache and the Navajo, the Spanish built presidios, or forts. By 1680 a thin chain of missions and presidios stretched across the Southwest.

Many Pueblo continued to practice their religion in secret. When they were discovered, Spanish officials punished them. One of those punished was a spiritual leader named Popé (poh PEH). He believed the Spanish attempt to convert the Pueblo was harmful. Popé planned a revolt against the Spanish and got others to join him.

On August 10, 1680, Popé's followers rose up, burning churches and attacking haciendas. The Spanish fled south to El Paso. The Pueblo had driven the Spanish out of their land at least for a short time.

☐ Read Selection Independently ☐ Listened to Selection

Part IV. Reading Comprehension

1. Why did de Oñate travel north from Central Mexico?

- ○ He was visiting Popé.
- ○ He wanted to settle new lands.
- ○ He was planning a revolt against the Spanish.
- ○ He wanted to stop the practice of Christianity.

2. Why did the Spanish want to convert the Pueblo to Christianity?

- ○ They thought that the Pueblo religion was incorrect.
- ○ They thought that the Pueblo wanted to be converted.
- ○ The Spanish thought they were being kind.
- ○ They wanted to build presidios.

3. Why do you think the Pueblo practiced their religion in secret?

- ○ They feared what would happen if the Spanish found out.
- ○ Their religion required them to practice in secret.
- ○ They thought that practicing their religion in secret would protect the Spanish from Popé.
- ○ The Spanish wanted them to practice their religion in secret.

4. What is the best title for this passage?

- ○ Native Americans Settle New Lands
- ○ The Spanish Try to Convert the Pueblo
- ○ Popé Attacks the Pueblo
- ○ The Friars Revolt Against the Spanish

5. What is the best definition of *mission* as it is used in this passage?

- ○ the business with which a group is charged
- ○ an operational task, usually assigned by a higher headquarters
- ○ missionary duty or work
- ○ a church settlement

SECTION B

Minnie May, aged three, was really very sick. She lay on the kitchen sofa, feverish and restless, while her hoarse breathing could be heard all over the house. Young Mary Joe, whom Mrs. Barry had engaged to stay with the children during her absence, was helpless and bewildered, quite incapable of thinking what to do, or doing it if she thought of it.

Anne went to work with skill and promptness.

"Minnie May has croup all right; she's pretty bad, but I've seen them worse. First we must have lots of hot water. I declare, Diana, there isn't more than a cupful in the kettle! There, I've filled it up, and, Mary Joe, you may put some wood in the stove. I don't want to hurt your feelings, but it seems to me you might have thought of this before if you'd any imagination. Now, I'll undress Minnie May and put her to bed, and you try to find some soft flannel cloths, Diana. I'm going to give her a dose of ipecac first of all."

Minnie May did not take kindly to the ipecac, but Anne had not brought up three pairs of twins for nothing. Down that ipecac went, not only once, but many times during the long, anxious night when the two little girls worked patiently over the suffering Minnie May, and Young Mary Joe, honestly anxious to do all she could, kept on a roaring fire and heated more water than would have been needed for a hospital of croupy babies.

It was three o'clock when Matthew came with the doctor, for he had been obliged to go all the way to Spencervale for one. But the pressing need for assistance was past. Minnie May was much better and was sleeping soundly.

☐ Read Selection Independently ☐ Listened to Selection

1. Based upon what is stated in the passage, which words might best describe Anne?

- ○ knowledgeable and attentive
- ○ slothful and uninspiring
- ○ erratic and fickle
- ○ helpless and bewildered

2. Based on the passage, *ipecac* is probably a type of _____ .

- ○ food
- ○ clothing
- ○ medicine
- ○ water

3. How did Anne know what to do to treat Minnie May's croup?

- ○ Anne read a book describing how to cure illnesses in children.
- ○ Matthew and the doctor gave her detailed instructions.
- ○ Anne had croup as a child and remembered how she had been cured.
- ○ Anne helped raise three sets of twins, giving her experience in treating croup.

4. Which of the following is *not* an example of how other characters in the story assisted Anne in saving Minnie May's life?

   ○ Matthew went to Spencervale to fetch the doctor.

   ○ Mrs. Barry cooked a pot of chicken soup.

   ○ Mary Joe tended to the fire and kept a supply of hot water on hand.

   ○ Diana helped locate soft, flannel cloths.

5. By the time the doctor arrived from Spencervale, Anne and the other girls probably felt _____.

   ○ relief

   ○ disgust

   ○ frustrated

   ○ amused

Changing density can explain why an object floats or sinks. For example, you can change the density of water by freezing it into ice. Since water expands when it freezes, ice occupies more space than water. That's why ice is less dense than water. But it's just a little less dense! So most of an ice cube floating on the surface is below the water's surface.

You can make an object sink or float in a fluid by changing its density. The density of a submarine is increased when water fills its floatation tanks. The overall mass of the submarine increases. Since its volume remains the same, its density increases when its mass increases. So the submarine will dive. To make the submarine float to the surface, water is pumped out of it, decreasing its mass. Its density decreases, and it rises toward the surface.

You can also explain why a submarine dives and floats by means of the buoyant force. Since the buoyant force is equal to the weight of the displaced fluid, the buoyant force on the submerged submarine stays the same. Changing the water level in the flotation tanks changes the weight of the submarine. The submarine dives when its weight is greater than the buoyant force. It rises to the surface when its weight is less than the buoyant force.

☐ Read Selection Independently ☐ Listened to Selection

1. Which statement is incorrect?

   ○ The density of an object increases as the mass of that object increases.

   ○ The density of an object cannot be changed.

   ○ An object will sink when its weight is greater than that of the buoyant force.

   ○ An object that is less dense than water will float.

2. Increasing the water level in the floatation tanks of a submarine causes the submarine to dive because the weight of the vessel is greater than that of the buoyant force. If the weight of a submerged object, such as a submarine, is equal to the buoyant force, the object will _____.

- ○ rise above the surface of the water
- ○ decrease in density
- ○ increase in mass
- ○ remain submerged in the water

3. According to the text, why does only a small fraction of an iceberg appear above the surface of water?

- ○ Ice is only slightly less dense than water.
- ○ The iceberg would melt if a larger portion of it was exposed to air.
- ○ The top of the iceberg weighs less than the bottom portion.
- ○ Water is slightly less dense than ice.

4. Which of the following is an example of when a person might have experienced the effects of buoyant force?

- ○ flying in an airplane
- ○ swimming under water
- ○ freezing water to create ice cubes
- ○ boiling an egg

5. Fran's recipe for salad dressing calls for mixing oil and vinegar. She places both ingredients in the bowl and notices that the oil floats on top of the vinegar. What conclusion can Fran draw about oil and vinegar?

- ○ Vinegar is less dense than oil.
- ○ Vinegar has a greater density than air.
- ○ Oil is less dense than vinegar.
- ○ Oil has a greater density than vinegar.

SECTION C

During the American Revolutionary War, under relentless British pursuit, the Continental (American) army kept retreating. British general John Burgoyne came up with a plan he hoped would quickly end the rebellion. However, at the village of Saratoga, New York, the Americans surrounded the British. After suffering heavy casualties, Burgoyne surrendered on October 17, 1777.

The Battle of Saratoga marked a major turning point in the war. The American victory ended the British threat to New England and destroyed British hopes of an easy victory. It also lifted Patriot spirits at a time when General Washington's army was suffering defeats. Perhaps most important, the Battle of Saratoga helped convince Europeans that the Americans had a sound chance of winning.

Soon after Saratoga, France agreed to openly support American independence. In February 1778, France officially formed an alliance with the United States. France was eager to weaken Britain. Even before Saratoga, the French had secretly supplied money and arms to the Americans. But the French did not want to take an open stand until it seemed the Americans might win. In February 1778, France became the first nation to sign a treaty with the United States.

France and its allies in the Netherlands and Spain also went to war with Britain. By carrying the fight to Europe and the Caribbean, the allies forced Britain to wage war on many fronts. This helped the American cause, because the British could spare fewer troops to fight in North America.

☐ Read Selection Independently ☐ Listened to Selection

1. What were three important results of the American victory at Saratoga?

- ○ raised the Patriot spirits; convinced Europeans that Americans could win the war; and opened up trading routes to the Caribbean
- ○ opened up trading routes to the Caribbean; France formed an alliance with the United States; ended British threat to New England
- ○ lifted Patriot spirits; ended British threat to New England; and convinced Europeans that Americans could win the war
- ○ France signed a treaty with America; ended British threat to New England; increased the money available to fight the war

2. How did France aid the Patriot cause?

- ○ France loaned the Americans money to buy arms, food, and uniforms for the soldiers.
- ○ France provided money and arms to the Patriots, and fought Britain in Europe.
- ○ French soldiers fought the British along side the Patriot troops in America.
- ○ France did not want to help the Americans because they were not sure that the Americans could win the war.

3. The word *relentless* in the sentence "During the American Revolutionary War, under relentless British pursuit…" means _____ .

- ○ unending and intense
- ○ constantly moving
- ○ extremely well planned
- ○ without focus

4. Pick the best title for this passage.

- ○ The Patriot Cause
- ○ Saratoga: A Turning Point
- ○ British Alliance with France
- ○ A Treaty with France

5. What could have happened if the Americans had lost the Battle of Saratoga?

- ○ America might have become part of France.
- ○ The British might have won the American Revolutionary War.
- ○ The British might have left New England.
- ○ The Americans might have convinced the Europeans to support them.

The Daffodils
By William Wordsworth

I wandered lonely as a cloud (1)
That floats on high o'er vales and hills,
When all at once I saw a crowd,
A host of golden daffodils;
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze.

Continuous as the stars that shine (7)
And twinkle on the Milky Way,
They stretched in never-ending line
Along the margin of a bay:
Ten thousand saw I at a glance,
Tossing their heads in sprightly dance.

The waves beside them danced; but they (13)
Out-did the sparkling waves in glee:
A poet could not but be gay,
In such a jocund company:
I gazed-and gazed-but little thought
What wealth the show to me had brought:

For oft, when on my couch I lie (19)
In vacant or in pensive mood,
They flash upon that inward eye
Which is the bliss of solitude;
And then my heart with pleasure fills,
And dances with the daffodils.

☐ Read Selection Independently ☐ Listened to Selection

1. What is the meaning of the word *pensive* in line 20?

- ○ deeply thoughtful
- ○ confused
- ○ extremely joyful
- ○ sad

2. Line 1 is an example of _____ .

- ○ a metaphor
- ○ rhyme scheme
- ○ a simile
- ○ alliteration

3. What is the meaning of *inward eye* in line 21?

- ○ a camera lens
- ○ personal memory
- ○ the lens of the eye
- ○ feelings

4. Which line is an example of personification?

- ○ Ten thousand saw I at a glance
- ○ Tossing their heads in sprightly dance
- ○ What wealth the show to me had brought
- ○ And then my heart with pleasure fills

5. Which statement best describes the message of the poem?

- ○ Daffodils are beautiful and admired by many people.
- ○ Flowers dance in the spring breezes.
- ○ It can be lonely among a field of flowers.
- ○ Upon reflection, the beauty of the daffodils brings happiness.

Part V. Mathematics

This placement test will evaluate your student on the skills necessary to successfully begin the Seventh or Eighth Grade Math curriculum. Remember, your student should complete the work independently. Avoid teaching the skills to your student while administering the test as this assessment is meant to provide an accurate evaluation of your child's current skills. The student does not need to complete the whole test. The student may skip any problems that are too difficult to complete.

Please show all your work when possible.

PART A

1. Solve.

3,542 + 7,256 + 4,984 = _____

$1,420 – $720 = _____

804
× 219

3674
× 89

4321
× 96

$5\overline{)6782}$

$96\overline{)3224}$

$8\overline{)3224}$

2. Solve and put the answer in simplest form.

$$\begin{array}{r} \frac{1}{8} \\ +\frac{6}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 17\frac{11}{13} \\ -\,9\frac{7}{13} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{2}{8} \\ +\frac{4}{8} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{8}{4} \\ +\frac{1}{4} \\ \hline \end{array}$$

$$\begin{array}{r} \frac{9}{10} \\ +\frac{3}{10} \\ \hline \end{array}$$

$$2-\frac{3}{5}=$$

$$\frac{3}{4}\times 4=$$

$$\frac{1}{4}\times 6=$$

3. Choose the correct set of data that shows the mean, median, mode and range of the following set of numbers.

12 , 8, 7, 10, 8, 7, 8, 12

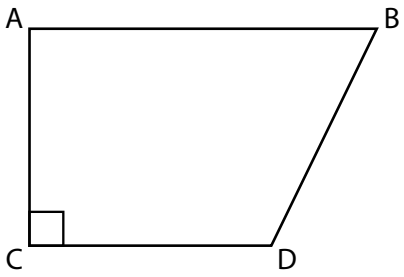
- ○ Mean – 72; Median – 16; Mode – 7; Range – 12
- ○ Mean – 72; Median – 9; Mode – 7; Range – 7
- ○ Mean – 9; Median – 8; Mode – 8; Range – 5
- ○ Mean – 5; Median – 8, Mode – 9; Range – 8

4. Solve.

In a class of 30 students, 3/5 are girls. How many are girls? _____

Part V. Mathematics

Use the figure below to answer the following two questions.



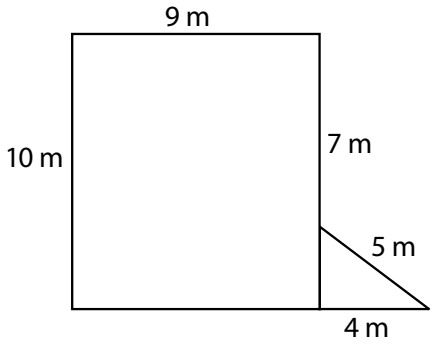
5. Name a pair of parallel line segments.

- ○ $\overline{AB}$ and $\overline{BD}$
- ○ $\overline{AC}$ and $\overline{BD}$
- ○ $\overline{AB}$ and $\overline{CD}$
- ○ $\overline{CD}$ and $\overline{BD}$

6. Name a vertical line segment.

- ○ $\overline{AB}$
- ○ $\overline{AC}$
- ○ $\overline{AD}$
- ○ $\overline{DB}$

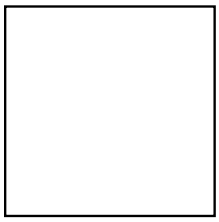
Use the figure below to answer the following questions.



7. Find the perimeter of the figure. _____

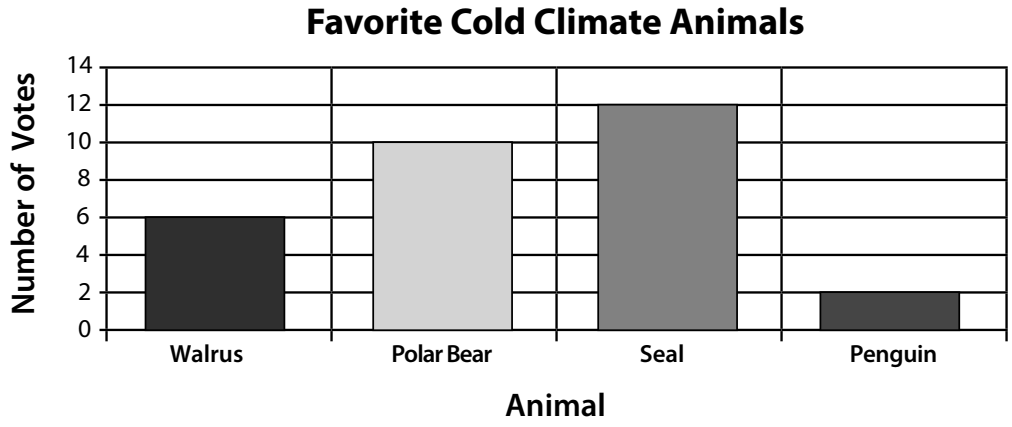
8. What is the area of the triangle? _____

9. Choose the correct number of lines of symmetry for this square.



○ 2
○ 4
○ 6
○ 8

Use the graph showing favorite cold climate animals to answer the following questions.



10. How many total votes are shown? _____

11. What is the difference between the animal that received the most votes and the animal that received the least votes? _____.

12. A pair of pants costs $36.49. A shirt costs $24.95. Victor has $55.00. How much more money does he need to buy the pair of pants and the shirt? _____.

13. Sam jogged on Monday and Tuesday. He jogged 4.55 kilometers on Monday and 1.78 kilometers farther on Tuesday than on Monday. What was the distance he jogged on both days? _____.

PART B

Please show your work.

1. Solve these problems.

$$\begin{array}{r} 456 \\ \times 831 \\ \hline \end{array} \qquad \begin{array}{r} 6280 \\ \times\ 283 \\ \hline \end{array} \qquad 8959 \div 289 = \_\_\_\_\_$$

$$21\overline{)52{,}576}$$

2. Choose the number statements below that are correct. There may be more than one correct answer.

- ○ $\frac{2}{4} = \frac{15}{30}$
- ○ $\frac{9}{27} > \frac{5}{6}$
- ○ $\frac{4}{3} > 1\frac{1}{4}$
- ○ $\frac{4}{12} < \frac{2}{24}$

3. Solve each problem and write the correct answer in simplest form.

$$\begin{array}{r} \frac{2}{3} \\ \frac{3}{4} \\ +\ \frac{5}{6} \\ \hline \end{array} \qquad \begin{array}{r} 11\frac{2}{3} \\ -\ \frac{8}{9} \\ \hline \end{array} \qquad \begin{array}{r} 6\frac{2}{3} \\ +\ 1\frac{1}{6} \\ \hline \end{array}$$

$4\frac{4}{5} - 3\frac{2}{5} =$ _____ $\qquad \frac{5}{8} + \frac{2}{3} =$ _____

4. Write an equation for each of these word problems below and solve.

Jason sold 6 boxes of greeting cards with 18 cards in each box, and 12 boxes with 24 cards in each box. How many greeting cards did he sell?

Equation: _____

Answer: _____

Ralph spent $\frac{5}{9}$ of an hour mixing paints and $\frac{7}{9}$ of an hour painting. How much time in all did Ralph spend on his project?

Equation: _____

Answer: _____

5. Solve these problems.

$5\frac{1}{2} \cdot (7\frac{1}{2} - 3\frac{1}{2}) =$ _____

$125 \div 5 - 2 \times 8 =$ _____

$19 - 5 + 2 \cdot 3 =$ _____

6. Solve each problem and write the correct answer in simplest form.

$\frac{2}{3} \times \frac{5}{6} =$ _____ $\frac{5}{7} \times \frac{4}{6} =$ _____

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

5 x $4\frac{2}{3}$ = _____

7. Choose the answer that shows the decimals in order from least to greatest.

○ 0.06 0.6 0.602 0.66
○ 0.66 0.602 0.6 0.06
○ 0.6 0.06 0.66 0.602
○ 0.06 0.66 0.6 0. 606

8. Find the greatest common factor of:

16 and 48 _____

9. Find the least common multiple of:

8 and 4 _____

10. Write these decimals as fractions.

0.6 = _____ 0.88 = _____

11. Solve.

42.3 ÷ 3 = _____

908 ÷ 16 = _____

12. Choose the percents that are correctly written as decimals. There may be more than one correct answer.

- ○ 75% =7.5
- ○ 25% = 0.25
- ○ 12% = 0.012
- ○ 8% = 0.08

13. Write these as percents.

0.05 = _____% 1.725 = _____% 4/20 = _____%

PART C

Remember, show your work when possible.

1. Solve each problem and write the correct answer in simplest form.

$\frac{5}{7} \times 4 =$ _____

$\frac{2}{3} \times \frac{5}{6} =$ _____

$1\frac{2}{3} \div \frac{2}{3} =$ _____

$\frac{8}{17} \div \frac{4}{17} =$ _____

$18\frac{1}{2} \times 3\frac{1}{3} =$ _____

2. Find the answers.

The number 17 is what percent of 68? _____

The number 84 is 20% of what number? _____

What number is 35% of 264.8? _____

3. Evaluate the expression when x = 7.

$24x - 7 =$ _____

$5x^2 - 5 + 15 =$ _____

$2(x + 2) + 2x =$ _____

4. Evaluate the expression.

31^2 _____

12^3 _____

5. Solve the following:

Last year you earned $965 for baby-sitting. This year you earned 105% of last year's amount. How much did you earn this year?

A train covers 180 miles in 2 hours. How many miles can the train cover in 12 hours?

Sarah's garden has 25 tulips and 10 daffodils. What is the ratio of the number of tulips to the number of daffodils?

In the first week, Lois jogged 1 mile. In the second week, she jogged 3 miles. In the third week, she jogged 5 miles. In the fourth week, she jogged 7 miles. If Lois continues to increase the distance she jogs in this way, how many miles will she jog in the twentieth week?

A bus stops at every third corner. Another bus stops at every eighth corner. If both buses start at the same place, how many blocks from the starting point will both buses stop?

6. Find the unit rate.

8 meters in 10 seconds _____

286 miles in 5 ½ hours _____

7. Solve each equation.

$-9k = 36$

$r/-8 = 64$

$s - 3 = -4$

$b + -2 = 5$

8. Find the value for ***n***.

$-12 + 18 = n$

$-18 \div 9 = n$

$-9 - (-5) = n$

$-4 - 13 = n$

PART D

1. Solve.

$24 \div [18 \div (12-3)]$

$(-6)2 + -5$

$-15 = c + 8$

$k - 1.8 = -10.5$

$21 = \frac{h}{6}$

$-7x = -56$

$1.6m - 0.2 = 3$

$\frac{b}{8} - 17 = 13$

$0.3x + 0.8 = 1.4$

2. Find the value for ***n***.

$428 \times 7.1 = n$

$-12 + 18 = n$

$3.4408 \div 0.092 = n$

$-18 \div 2 = n$

3. Rename the following as a terminating or repeating decimal.

$\frac{9}{21}$

$5\frac{11}{25}$

$\frac{5}{3}$

4. Find the mean, median, mode, and range for this set of data: 10, 19, 25, 9, 10, 15, 3.

5. Solve

$1.6m - 0.2 = 3$

$\frac{b}{8} - 17 = 13$

$0.3x + 0.8 = 1.4$

6. You have a dog walking business and earn $8 each time you walk a dog. You have already saved $30. How many dogs do you have to walk to earn $102 to buy a bike?

Equation: _____

Answer: _____

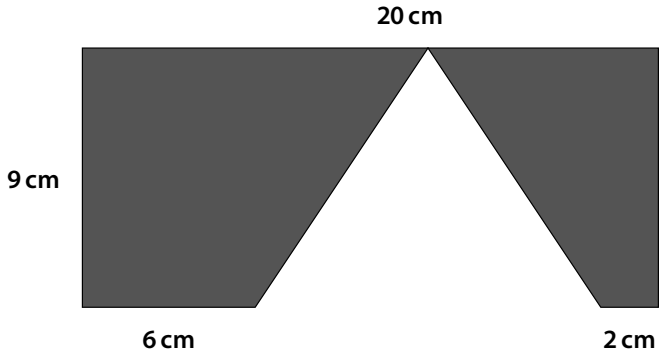
7. The product of two numbers is $3\frac{1}{4}$. One factor is $3\frac{5}{7}$. What is the other factor?

8. Simplify these expressions.

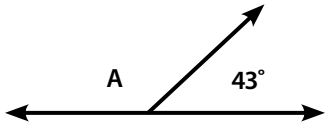
$17c - 3 + 5 - 5c$

$8b - 12b + 10b$

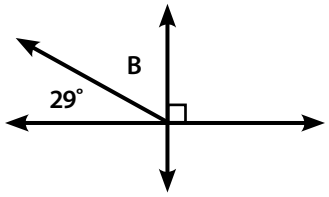
9. Find the area of the shaded region.



10. Find the measure of angle A without measuring.



11. Find the measure of angle B without measuring.



12. Write the ordered pairs you get when you use these x-coordinates to solve the equation: -5, 0, 4

Equation: $3x - y = 7$

13. Solve

$\sqrt{625}$ $\sqrt[3]{64}$

14. John wants to receive a 96% average on 4 math tests. So far he has taken 3 tests. His grades are 94%, 98%, and 98%. Write an equation in terms of f to find out what John must score on his fourth test in order to receive a 96% average.

Part VI. Online Portion

Your student will complete the online portion of the placement assessment. This assessment is not timed, but it will take your student 20 to 30 minutes to complete. Please make sure that you have a set of working headphones or speakers before you begin.

http://www.verticylearning.org/onlineportion