**Math 8 Written Final Exam Practice**

Each of the written questions will be on a 4 point scale seen below:

|  |  |  |  |
| --- | --- | --- | --- |
| **1** | **2** | **3** | **4** |
| * Did not get the correct answer, but made a basic attempt (ie. drawing problem) | * Did not get the correct answer, but made a solid attempt to find the solution with more than just a basic attempt (ie. drawing problem, numerical manipulation and creation of equations) | * Correct answer * Shows the process of getting the correct answer however, missing some details in flow of answer | * Correct answer * Shows the process of getting the correct answer in detail |

Practice questions:

1. The two ends of a right triangular prism are equilateral triangles. Each has an area of 27 cm 2. The total surface area of the prism is 390 cm 2. Draw the shape below, and calculate the area of each of the rectangular faces. **(Measurement unit)**
2. A square and a rectangle have the same area. The rectangle has length 9cm and height 16 cm. Find the area and perimeter of the square. Draw both shapes below, including dimensions. **(Measurement unit)**
3. Jacob takes a shortcut to school by walking diagonally across an empty lot. The rectangular lot is 20 meters wide and 40 meters long. How much shorter is the shortcut than a route on the sides of the lot? Show all your work. **(Pythagoras unit)**
4. At a store, 3 notebooks and 2 pencils cost $2.80. At the same prices, 2 notebooks and 5 pencils cost $2.60. Find the cost of one notebook and one pencil. **(Ratio unit)**
5. There are two flag poles that are 4.5 meters tall. The distance from the top of the left pole to the base of the right pole is 7.5 meters. What is the distance between the 2 flag poles? **(Pythagoras unit)**
6. Mrs. Arcuri is planting her deck pots for the summer. She has four different type of flowers that she includes in her planters. They are Pansies, Petunias, Osteopernum, and Snap Dragons. The different colours are in the chart below. She is only going to put ONE TYPE OF EACH FLOWER in each planter. Draw a diagram showing the various combinations on colours that could go in each planter. How many different combinations can be made.

|  |  |  |  |
| --- | --- | --- | --- |
| Pansies | Petunias | Osteopernum | Snap Dragons |
| Purple | Pink | Yellow | Yellow |
| White | Purple | Red | Pink |
| Yellow | White | Orange | Blue |

1. In his Marathon of Hope, Terry Fox ran 5373 km in 143 days. At this rate, approximately how many kilometres did he run in 10 days? Show your work. **(Rate unit)**
2. An aquarium has the dimensions of 30 cm (length) x 25 cm (height) x 25 cm (width). The water is 8 cm from the top. What is the volume (Length x width x height) of water, in cm3, in the aquarium? Draw a diagram of the aquarium and add all necessary dimensions.
3. Gabby has two pieces of ribbon that are each m long. She needs to cut each piece into smaller lengths of m. How many smaller pieces will she have in total? Draw the ribbon lengths and complete the dimensions. **(Fraction unit)**

