

Grade 8 Sweet Tart Math

This is a cross strand, multiple outcome formative assessment that would be used at any time in the year as a review or as a great substitute teacher activity.

Outcomes Measured

8.N.1 Demonstrate an understanding of perfect squares and square roots, concretely, pictorially and symbolically (limited to whole numbers).

8.N.2 Determine the approximate square root of numbers that are not perfect squares (limited to whole numbers).

8.N.4 Demonstrate an understanding of ratio and rate.

8.N.6 Demonstrate an understanding of multiplying and dividing positive fractions and mixed numbers, concretely, pictorially and symbolically.

8.N.7 Demonstrate an understanding of multiplication and division of integers, concretely, pictorially and symbolically.

8.SS.1 Develop and apply the Pythagorean theorem to solve problems.

8.SS.2 Draw and construct nets for 3-D objects.

8.SS.3 Determine the surface area of:

- right rectangular prisms
- right triangular prisms
- right cylinders

to solve problems.

8.SS.4 Develop and apply formulas for determining the volume of right rectangular prisms, right triangular prisms and right cylinders.

8.SP.2 Solve problems involving the probability of independent events.

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Name: _____

1. Count the number of Sweet Tarts in your package and record the results.
2. What fraction of your total does each color represent, make sure to reduce your fractions.

Red
Yellow
Orange
Blue
Purple
Green

3. Add you red, and orange Sweet Tarts together and multiply them by the sum of your blue, and green Sweet tarts, keep in fraction form and reduce.
4. Divide your yellow Sweet Tarts by your purple Sweet Tarts in fraction form, remember to reduce.
5. Find the square root of the total number of Sweet Tarts.

7. Express the value of each color in the following forms:

Red – negative whole number

Purple – percentage of the total

Green - percentage of the total

Yellow – positive whole number

Blue – negative whole number

Orange – positive whole number

5. Place each value on the number line provided.
6. Without using a calculator;
- Multiply Red and Yellow
 - Multiply Red and Blue
 - Multiply Purple and Yellow
 - Divide Blue by Red
 - Divide Blue by Orange
7. If you make a right angle triangular shape with your Sweet Tarts that was 4 cm high and had a base of 9 cm, what would be the length of your third side?
8. Which measure of central tendency you would use to determine the average color of you Sweet Tarts? Why?
9. Write a three term ratio for red to blue to yellow Sweet Tarts, and for purple to green to orange Sweet Tarts.
10. If you were to reach blindly into your bag of Sweet Tarts, what is the probability that you would pull out a yellow Sweet tart on the first try, a red one on the second try, a blue on the third, orange on the forth, purple on the fifth, and green on the sixth?