Grade 6 – Grade 8 Original Problems

Grade 6

6(4)(B) *apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates.*

A gas-powered lawn mower can run for 10 hours on 3 gallons of gasoline. If the gasoline costs $3 per gallon, what is the cost per hour to run the lawn mower?

Grade 7

7(9)(B) *determine the circumference and area of circles.*

The circumference of a circular garden is 32 feet. What is the radius of the circular garden?

Grade 8

8(7)(B) *use previous knowledge of surface area to make connections to the formulas for lateral and total surface area and determine solutions for problems involving rectangular prisms, triangular prisms, and cylinders.*

A candy box is in the shape of a rectangular prism. It has a length of 17 inches, a width of 10.4 inches, and a height of 2.5 inches. What is the surface area of the candy box?