MFM2PI – *Unit 8: Geometry – Lesson 6*  Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Surface Area of Prisms and Cylinders**

1. **What is Surface Area?**

**Surface area** is the *sum* of all the areas of the exterior surfaces of a shape. As with volume, there are formulas to help you calculate the surface area of some common shapes, but the challenging aspect of calculating surface area is figuring out if you’ve included all the surfaces that are required – no side left behind please!

As a way of helping students visualize how a shape looks when it has been reduced to only surfaces, we are going
to create “nets” for each shape.

Imagine that your three-dimensional shape was held together with tape, which you could take off. Now the shape
can be laid out flat and examined – the resulting “flat” version of the shape is called a “net”. A “net” helps you visualize a 3-dimensional shape as the sum of its 2-dimensional sides.

Let’s look at some common prisms and try to sketch their “nets”.

 ***Rectangular Prism Triangular Prism Cylinder***

Here are correct versions of the nets drawn in the examples from the front of this lesson.



1. **Calculating Surface Area**

*Calculate the surface area of the following shapes. Make a sketch of the net to ensure that you include all sides in your calculations. Don’t forget to include the proper units!*

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**HW: *Unit 8 Lesson 6 Worksheet***