***MPM1D - Spiral 5 Test Review*Angle Relationships**

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| 1. What is the sum of the interior angles of 20 sided figure? | 1. What is the measure of each angle of a regular polygon with 18 sides? |
| 1. If the sum of the interior angles of a polygon is 3060º, how many sides does it have? | 1. The interior angles of a regular polygon measure 144º. How many sides does the polygon have? |
| 1. Find the value of x in the pentagon shown below. | 1. a) Find the measure of . |
| 1. Solve for x | 1. Find the value of y |
| 1. What is the value of z? Show your work. | Answers to geometry  1. 3240° 2. 160° 3. 19 4. 10 5. 110° 6. 72° 7. 21.25 ° 8. 65° 9. 54° |

**Playdoh-Water-Paper Problems**

1. You make a paper cube with side lengths 5 cm. If you double the side lengths, how many times bigger is the surface area? What about the volume?
2. A cylinder has a circumference of 50 cm, and is filled with water to a height of 12 cm. If you drop 3 golf balls into the water, to what height will the water level rise? Golf balls have a diameter of 4.4 cm.
3. A cylinder with a height of 5 cm and a radius of 3 cm is made out of playdoh. If you break the playdoh in half and form two new cylinders with a height of 5 cm, what will the new radius be?
4. One playdoh cube has a volume that is 50% more than a smaller playdoh cube. If the side lengths of the large playdoh cube are 4 cm, what are the side lengths of the smaller cube?
5. You make a cube out of playdoh, and calculate its surface area to be 900 cm2. If you turn that cube into a sphere, what will the surface are of the sphere be?

ANSWERS: 1. SA 4x V 8x 2. Increase: 0.7 cm, height of 12.7 cm 3. r = 2.1 cm 4. l = 3.5 cm 5. R = 7.6 cm, SA = 725 cm2