MFM2PI – *Unit 4: Similar Triangles – Lesson 3 Worksheet* Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Real World Similar Triangle Problems: Worksheet!**

1. **Solve the following similar triangle problems. Round your answers to the nearest whole number.**

Question 1: If a 2-foot tall anthill casts a 1-foot shadow, then how tall is an adult giraffe that casts a 7-foot shadow   
at the same time?

Question 2: A 2-metre tall man places a mirror 32 metres from the base of a cliff. He walks 4 metres away from the mirror before he can see the top of the cliff. How high is the cliff?

Question 3: A 3-foot tall lawn ornament standing next to a tree casts a shadow that is 2 feet long. If the tree casts   
a shadow that is 4 feet long, how tall is the tree?

Queston 4: If a 6-foot tall teen wants to see the top of an abandoned water tower, she places a mirror 20 feet   
from the base of the tower and stands 4 feet from the mirror to see the top. How tall is tower?

Question 5: A T-Rex stands at 40 feet tall, hanging out near a tree stump. If the tree stump is 8 feet tall and casts a   
shadow that is 7 feet long, how long is the shadow that the T-Rex casts at the same time?

**Answers: 1) 14 ft 2) 16 m 3) 6 ft 4) 30 ft 5) 35 ft**

1. **Solve the following similar triangle problems. Round your answers to one decimal place.**

Question 1: If a 2.6-foot tall baby elephant casts a 6-foot long shadow, how tall is the papa elephant that casts a 40.9-foot shadow at the same time?

Question 2: If a woman places a mirror 45.7 metres from the base of the apartment building and then walks 4.4 metres away from the mirror, she can see the top of the building. If the woman is 1.9 metres tall, how tall is the apartment building?

Question 3: A man, who is 6.7 feet tall, casts a shadow that is 23.1 feet long. The velociraptor that is hunting the man casts a shadow that is 34.8 feet long. How tall is the velociraptor?

Question 4: A teen at Cape Canaveral wants to figure out how tall the launching rocket is. If he is 1.8 metres tall and discovers the rocket is 110.6 metres tall (and he stands 5.2 metres from the mirror to see the top of the rocket), how far does the teen have to place the mirror from the base of the rocket?

Question 5: A child stands next to a phone booth. The phone booth is 9.3 feet tall and casts a shadow that is 12 feet long. If the child is 3.4 feet tall, then how long is his shadow?

**Answers: 1) 17.7 ft 2) 19.7 m 3) 10.1 ft 4) 319.5 m 5) 4.4 ft**