**Appendix E&F: Speed Calculation Worksheet Answer Key**

Directions: Solve each of the problems below. Your answer should be in miles per hour unless the problem says otherwise.

Speed = Distance / Time

1. A snail moves 20 inches in 3 hours. What is the speed of the snail?

$$v=\frac{x}{t}=\frac{20 in}{3 hr}=6.67 \frac{in}{hr}$$

$$6.67 \frac{in}{hr}×\left(\frac{mile}{63360 in}\right)=0.000105 mph$$

1. If you sail for 9 hours on a river and travel 54 miles, how fast were you moving?

$$v=\frac{x}{t}=\frac{54 mi}{9 hr}=6 mph$$

1. My grandma loves going on roller coasters. She wants to go on the fastest coaster. Would she rather ride the coaster that goes 2 miles in 30 minutes or a coaster that moves 5 miles in 55 minutes? Why?

She would rather ride Coaster 2, because its average speed is faster than Coaster 1.

Coaster 1: $v=\frac{x}{t}=\frac{2 mi}{30 min}×\left(\frac{60 min}{hr}\right)= 4.0 mph$

Coaster 2: $v=\frac{x}{t}=\frac{5 mi}{55 min}×\left(\frac{60 min}{hr}\right)=5.5 mph$

1. A man fell out of a tree that was 30 feet high. He hit the ground in 4 seconds. What was the speed at which he was falling? (answer in feet per second)

$$v=\frac{x}{t}=\frac{30 ft}{4 s}=7.5 \frac{ft}{s}$$

1. If the mailman has to travel 34 miles a day and he works for 7 hours, what is his average speed?

$$v=\frac{x}{t}=\frac{34 mi}{7 hr}=4.9 mph$$