GSE Algebra 1 – Unit 1 - Unit Conversions by Dimensional Analysis

Name_____ **Date**_____ **Period**_____

Learning Targets NQ1.c.

c. I can convert units of measure within multi-step problems and formulas.

Part 2 – Guided Dimension Analysis Activity
Directions: Unscramble the units on the given page to solve the problems below. Cut-out the units and tape them in the appropriate places. Write your final answers with units.

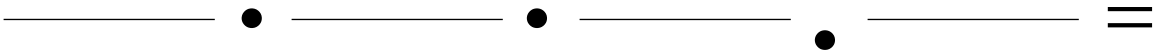
1. A snail can travel about 0.03 miles per hour. Convert this speed into feet per hour.

_____ • _____ =

2. Convert 45 miles per hour to feet per minute.

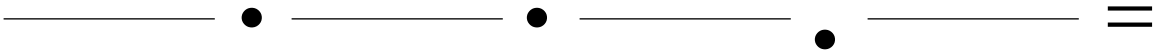
_____ • _____ • _____ =

3. The elevator in a building takes 75 seconds to travel 500 feet to the top floor. What is the speed of the elevator in miles per hour? Round your answer to the nearest tenth.



Learning Target NQ1.d:
d. I can interpret units of input and resulting units of output.

4. A police officer saw a car travel 1800 feet in 30 seconds. The speed limit on that road is 55 mph. Was the car speeding?



5. To qualify for a race, a runner must be able to run at a pace of at least 15 kilometers per hour. Noah ran 5 miles in 30 minutes. Does he qualify? There are approximately 1.6 kilometers in a mile.

1.

1 hr	***1 mi***
0.03 mi	***5280 ft***

4.

1 hr	***1 hr***	***1 mi***
45 mi	***60 min***	***5280 ft***

3.

1 hr	***1 mi***	***1 min***	***60 min***
60 sec	***75 sec***	***500 ft***	***5280 ft***

4.

1 hr	***1 mi***	***1 min***	***60 min***
30 sec	***60 sec***	***1800 ft***	***5280 ft***

5.

1 hr	***1 mi***	***5 mi***	***1.6 km***	***30 min***	***60 min***