

Name _____ Date _____ Period _____

Activity 03-03

Converting Metric Prefixes

Convert the following equalities into true relationships. Show your work using dimensional analysis.

$$20 \text{ km} = 20\,000\,000 \text{ mm} \quad \frac{20 \text{ km}}{1} \cdot \frac{1000 \text{ m}}{1 \text{ km}} \cdot \frac{1000 \text{ mm}}{1 \text{ m}} = 20\,000\,000 \text{ mm}$$

$$50 \text{ dm} = 0.5 \text{ dkm} \quad \frac{50 \text{ dm}}{1} \cdot \frac{1 \text{ m}}{10 \text{ dm}} \cdot \frac{1 \text{ dkm}}{10 \text{ m}} = 0.5 \text{ dkm}$$

1) $50 \text{ mm} = \underline{\quad ? \quad} \text{ cm}$

2) $20 \text{ cm} = \underline{\quad ? \quad} \text{ m}$

3) $325 \text{ m} = \underline{\quad ? \quad} \text{ dm}$

4) $5 \text{ km} = \underline{\quad ? \quad} \text{ m}$

5) $5 \text{ km} = \underline{\quad ? \quad} \text{ cm}$

6) $6 \text{ mm} = \underline{\quad ? \quad} \text{ m}$

7) $0.17 \text{ km} = \underline{\quad ? \quad} \text{ cm}$

8) $0.15 \text{ km} = \underline{\quad ? \quad} \text{ m}$

9) $28 \text{ m} = \underline{\quad ? \quad} \text{ km}$

10) $28 \text{ m} = \underline{\quad ? \quad} \text{ mm}$

11) $0.36 \text{ m} = \underline{\quad ? \quad} \text{ mm}$

12) $5360 \text{ mm} = \underline{\quad ? \quad} \text{ m}$