Name _____

2.2 Estimating and Measuring Metric Lengths

Focus: literacy and estimating and measuring lengths

Chapter 2

Warm Up

1. Calculate.

a) $4.73 \times 10 =$ _____

b) $4.73 \times 100 =$ _____

c) $4.73 \times 1000 =$ _____

2. Calculate.

a) $890 \div 10 =$ _____

b) $890 \div 100 =$ _____

c) $890 \div 1000 =$ _____

3. There are 100 _____ in 1 dollar.

4. There are 100 _____ in 1 m.

5. Round each amount to the nearest dollar.

a) $4.49 _____

b) $9.90 _____

c) $0.29 _____

d) $4.50 _____

6. The unit price of a rewriteable CD is about $1.50. Find the cost of each number of rewriteable CDs.

a) 2 _____

b) 3 _____

c) 10 _____

d) 20 _____

e) 100 _____

f) 200 _____

Estimating Metric Lengths

- Some of the names of the prefixes of metric measures are French in origin.

1. Match each English word with its French equivalent.

ten	*mille*
one hundred	*dix*
one thousand	*cent*

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2. Choose a word from the box to complete each sentence correctly.

centimetres	millimetres	decimetres

The centimetre and the millimetre are very common. But, the decimetre is hardly ever used.

Chapter 2

a) There are 1000 _____ in one metre.

b) There are 100 _____ in one metre.

c) There are 10 _____ in one metre.

3. Fill in the blanks using the abbreviations for the metric units.

abbreviation
a short form
Example: cm is the abbreviation for centimetre

a) 2 m = 200 _____

b) 3000 _____ = 3 m

c) 400 cm = 4 _____

d) 4 _____ = 40 mm

e) 2 km = 2000 _____

f) 2.5 _____ = 250 cm

g) 180 cm = 1.8 _____

h) 21 mm = 2.1 _____

4. Convert each measurement to the units shown.

a) 500 cm = _____ m

b) 6 m = _____ cm

c) 10 cm = _____ mm

d) 2 km = _____ m

e) 1.5 m = _____ cm

f) 4.5 km = _____ m

5. Use what you know to complete these sentences correctly.

a) There are ten _____ in 1 cm.

b) There are two thousand _____ in 2 m.

c) There are _____ centimetres in 8 m.

d) There are two _____ in 2000 m.

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- Often, the greater the distance, the less accuracy is needed. For example, the distance from Earth to the moon is 384 000 km. Using 400 000 km is often good enough.
- A smaller distance often requires greater accuracy. For example, the width of a pencil is about 8 mm.

Chapter 2

6. Estimate the length of each line to the nearest centimetre using your personal references from page 49. Then, measure the actual length of each line. The first one is done for you.

a) _____

b) _____

c) _____

d) _____

e) ___

f) _____

g) _____

h) _____

i) ___

	Estimate	Measure
a)	**a)** 5 cm	5.8 cm
b)	**b)**	
c)	**c)**	
d)	**d)**	
e)	**e)**	
f)	**f)**	
g)	**g)**	
h)	**h)**	
i)	**i)**	

- It is important to be able to understand an-d compare measurements with different metric units.

7. Circle the greater measurement.

a) 450 m or 4.5 km

b) 1 m or 120 cm

c) 25 mm or 0.25 m

d) 100 m or 0.5 km

e) 300 cm or 0.5 m

f) 50 mm or 0.5 cm

- Use the table shown below to complete #8 to #10.

8. Determine the metric units that you would use to measure each Item to be Measured listed in the table. Complete the Units column of the table. Then, stop.

9. Use one of your personal references from page 49 to estimate the measurement of each item. Complete the Estimate column of the table. Then, stop.

10. Measure the items using a metric ruler or a measuring tape. Write your measurements in the last column of the table.

Item to be Measured	Units	Estimate	Measurement
a) Height of classroom			
b) Length of classroom			
c) Width of classroom door			
d) Length of this workbook			
e) Thickness of a loonie			
f) Diameter of a penny			

11. Which personal reference did you use to estimate the length of this workbook?

☑ Check Your Understanding

1. Which personal reference is easiest to use? Give an example.

2. Which personal reference is most difficult to use? Give an example.