Name_____ Date_____ Period_____

LESSON 3-7 · SESSION 1 · PRACTICE · FORM B

Customary vs. Metric Conversions

Learning target – I can convert a measurement between the customary and metric systems using a given rate. · 6.RP.A.3d

REMEMBER

- Use the fact the problem gives. **≈** means "about equal to," so answers are **estimates**.
- With 1 kg ≈ 2.2 lb: kg to lb, **multiply** (10 × 2.2 = 22 lb). Lb to kg, **divide**.
- Before you compare two amounts, put both in the **same unit**.

WORKED EXAMPLE

A bag weighs 44 pounds. About how many kilograms? (1 kg ≈ 2.2 lb)

Step 1 A kilogram is heavier, so the number gets smaller: divide.

Step 2 44 ÷ 2.2 = 20.

Step 3 Check: 20 × 2.2 = 44.

Answer **44 lb ≈ 20 kg**

WORDS **conversion factor** *(factor de conversión)* · **approximately (≈)** *(aproximadamente)* · **reasonableness** *(razonabilidad)*

PRACTICE

show your work · label units

1. Convert. (1 kg ≈ 2.2 lb, 1 m ≈ 3.28 ft, 1 in = 2.54 cm)

a. 15 kg ≈ ____ lb

b. 66 lb ≈ ____ kg

c. 4 m ≈ ____ ft

d. 3 in = ____ cm

2. **Speed Sign.** A highway sign in Mexico reads 80 km per hour. (1 mi ≈ 1.6 km)

Hint *A mile is longer than a kilometer, so divide.*

a. About how many miles per hour is that? _____ mph

b. Should your answer be greater or less than 80? Why? _____

Show your work.

3. **Soccer Field.** A soccer field is 65 m wide. A football field is 160 ft wide. (1 m ≈ 3.28 ft)

a. Soccer width in feet: _____ ft

b. Which field is wider? _____

Show your work.

4. **Suitcase.** The bag limit is 50 lb. A suitcase weighs 24 kg. (1 kg ≈ 2.2 lb)

a. Weight in pounds: _____ lb

b. Under the limit? By how much? _____

Show your work.

5. Road Trip. A drive to Toronto is 120 miles. About how many kilometers is that? (1 mi ≈ 1.6 km)

Hint *Kilometers are shorter, so the number gets bigger: multiply.*

Show your work.

Answer _____ km

6. Water Bottle. A bottle holds 12 fluid ounces. About how many milliliters is that, to the nearest whole mL? (1 fl oz ≈ 29.6 mL)

Show your work.

Answer _____ mL

7. Backpack Check. A backpack weighs 6 kg. The nurse says it should stay under 12 pounds. Find its weight in pounds. Is it under the limit? (1 kg ≈ 2.2 lb)

Hint *Change kilograms to pounds, then compare with 12.*

Show your work.

Answer _____ lb

8. Which Is Longer? A rope is 3 m long. A cable is 10.5 ft long. (1 m ≈ 3.28 ft)

Hint *Put both lengths in feet before you compare.*

a. Rope length in feet: _____ ft

b. Which is longer, and by about how much? _____

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. DeShawn's Work. DeShawn converted 40 miles to kilometers by dividing: 40 ÷ 1.6 = 25 km. Explain why 25 km is impossible for 40 miles. Then find the correct distance. (1 mi ≈ 1.6 km)

_____

_____

_____

TEST PRACTICE

choose the best answer

10. 3 meters is about how many feet? (1 m ≈ 3.28 ft)

A 0.91 **B** 6.28 **C** 9.84 **D** 32.8

11. 6.6 pounds is about how many kilograms? (1 kg ≈ 2.2 lb)

A 3 **B** 14.52 **C** 4.4 **D** 8.8

SELF-CHECK CODE *find your answer · copy its letter into that problem's box · spell a math word*

128 Z	10.91 X	213.2 N	13.2 H	52.8 G	192 T	75 Q	13.12 L	50 E

#1c	#2a	#3a	#4a	#5	#7

CHECK YOURSELF ☐ I can do this on my own ☐ I need a little help ☐ I have a question about #___