

Hw???

7. How many quarter-pound (before cooking) hamburgers can you make from 1.9 kg of ground beef?

$$1 \text{ kg} = 2.2 \text{ lbs}$$

$$1.9 \text{ kg} \times \frac{2.2 \text{ lbs}}{1 \text{ kg}} = 4.18 \text{ lbs}$$

$$\# \text{ of burgers} = \frac{4.18}{0.25}$$

$$4.18 \div \frac{1}{4}$$

$$4.18 \times 4$$

= 16 burgers

#1-5 p. 201

5. Coffee is the second most highly traded commodity in the world. Jean owns a coffee shop in Caraquet, NB. He buys fresh fair-trade coffee beans because he knows that this helps protect the coffee farmer's income.

The beans he buys weigh 35 pounds a cubic foot. After he roasts them, they weigh only 27 pounds a cubic foot. He sells his coffee for \$17.95 a pound.

- a) What do you think is the most highly traded commodity in the world?
- b) Assume that the farmer selling the beans got a market floor price of \$1.35 a pound. If Jean buys 25 cubic feet of coffee beans, and sells it at \$17.95 a pound after roasting, compare the income of the farmer with Jean's selling price.

Farmer

35 lbs / ft<sup>3</sup>

↓ ROAST  
Jean  
27 lbs / ft<sup>3</sup>

17.95 / lb

a) Popular

b)

$$25 \text{ ft}^3 \times \frac{35 \text{ lbs}}{1 \text{ ft}^3} = 875 \text{ lbs (non roasted)}$$

$$\text{Farmers \$} = 875 \times 1.35 \text{ lb}$$

$$= 1181.25$$

$$\frac{27 \text{ lbs}}{\text{ft}^3} \times 25 \text{ ft}^3 = 675 \text{ lbs}$$

$$\text{Jean's \$} = 675 \times 17.95$$

$$= 12116.25$$

$$\text{PROFIT} = 12116.25$$

$$- 1181.25$$

$$\hline \$ 10935.00$$

Let's make some conversion factors...

$$1) \ 1 \text{ oz} = \underline{28.4} \text{ g}$$

$$2) \ 1 \text{ t} = \underline{1.1} \text{ tn}$$

$$1 \text{ kg} = 2.2 \text{ lbs}$$

$$1 \text{ oz} \times \frac{1 \text{ lbs}}{16 \text{ oz}} \times \frac{1 \text{ kg}}{2.2 \text{ lbs}} \times \frac{1000 \text{ g}}{1 \text{ kg}}$$

$$1 \text{ t} \times \frac{1000 \text{ kg}}{1 \text{ t}} \times \frac{2.2 \text{ lbs}}{1 \text{ kg}} \times \frac{1 \text{ tn}}{2000 \text{ lbs}}$$

**EXAMPLE 2:**

Mrs. MacAllister is baking apple pies. According to her recipe, she needs 6 pounds of apples. The bag of apples she bought only shows the weight in kilograms. Can you help her out???

Solution is...

Remember... 1 kg = 2.2 lbs

Ex #2

$$6 \text{ lbs} = \underline{2.72} \text{ kg}$$
$$6 \text{ lbs} \times \frac{1 \text{ kg}}{2.2 \text{ lbs}}$$

**NOTE:** To estimate a conversion from pounds to kilograms you can think of a pound being about 1/2 kg.

**EXAMPLE 3:**

The cost of bananas at the Irving is \$0.79/lb, but you see an advertisement for bananas on sale at Sobey's for \$1.33/kg. **Which is a better**

60 ¢

$$\frac{\$1.33}{\text{kg}} \times \frac{1 \text{ kg}}{2.2 \text{ lbs}} = \$0.60/\text{lb}$$

# Remember...

## SI (metric)...

$1 \text{ g} = 1000 \text{ mg}$   
 $1 \text{ kg} = 1000 \text{ g}$   
 $1 \text{ t} = 1000 \text{ kg}$

$28.4 \text{ g} = 1 \text{ oz}$   
 $1 \text{ kg} = 2.2 \text{ lbs}$   
 $1.1 \text{ tn} = 1 \text{ t}$

## Imperial...

$1 \text{ lb} = 16 \text{ oz}$   
 $1 \text{ tn} = 2000 \text{ lb}$

**WARM-UP:** Convert the following...

a) 56 g = 1.97 oz

$$56 \text{ g} \times \frac{1 \text{ oz}}{28.4 \text{ g}}$$


b) 120 lbs = 54.55 kg

$$120 \text{ lbs} \times \frac{1 \text{ kg}}{2.2 \text{ lbs}}$$

c) 34 oz = 965.6 g

$$34 \text{ oz} \times \frac{28.4 \text{ g}}{1 \text{ oz}}$$

## HOMEWORK...

 Worksheet - Converting Imp\_Metric Masses.pdf

Do even #'s

p. 209 #1 - 4 & 6

Wednesday Quiz... up to here!



# SOLUTIONS...

Name : \_\_\_\_\_ Score : \_\_\_\_\_

Teacher : \_\_\_\_\_ Date : \_\_\_\_\_

## Converting English and Metric

- |                          |                         |
|--------------------------|-------------------------|
| 1 ) <u>16.53</u> pounds  | = <u>7.5</u> kilograms  |
| 2 ) <u>0.63</u> ounces   | = <u>18</u> grams       |
| 3 ) <u>13.5</u> pounds   | = <u>6.12</u> kilograms |
| 4 ) <u>15</u> ounces     | = <u>425.24</u> grams   |
| 5 ) <u>35.27</u> pounds  | = <u>16</u> kilograms   |
| 6 ) <u>12.5</u> pounds   | = <u>5.67</u> kilograms |
| 7 ) <u>8</u> ounces      | = <u>226.8</u> grams    |
| 8 ) <u>0.51</u> ounces   | = <u>14.5</u> grams     |
| 9 ) <u>8.82</u> pounds   | = <u>4</u> kilograms    |
| 10 ) <u>0.65</u> ounces  | = <u>18.5</u> grams     |
| 11 ) <u>47.4</u> pounds  | = <u>21.5</u> kilograms |
| 12 ) <u>2.5</u> ounces   | = <u>70.87</u> grams    |
| 13 ) <u>0.34</u> ounces  | = <u>9.5</u> grams      |
| 14 ) <u>0.69</u> ounces  | = <u>19.5</u> grams     |
| 15 ) <u>20</u> pounds    | = <u>9.07</u> kilograms |
| 16 ) <u>17</u> pounds    | = <u>7.71</u> kilograms |
| 17 ) <u>6.5</u> pounds   | = <u>2.95</u> kilograms |
| 18 ) <u>15.43</u> pounds | = <u>7</u> kilograms    |
| 19 ) <u>8.5</u> ounces   | = <u>240.97</u> grams   |
| 20 ) <u>22</u> ounces    | = <u>623.69</u> grams   |

## Attachments

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5.3 Worksheet - Mass in a SI System.docx

Worksheet - Converting Imp\_Metric Masses.pdf