

7th Grade Assignment – Week #10

Announcement!

- The Measurement test is included with next week's assignment. You will take the test by the end of next week (week #11).

Individual Work

- As much as you can, do the problems from Measurement Sheet #7. In preparation for the test, you should focus on the problems which you need to practice the most.

Group Assignment:

For Tuesday. Puzzle! **A Row of Houses** (perhaps this will take more than one group meeting!)

Each person is a different nationality, lives in a different colored house, drinks something different, eats something different, and has a different pet. There are no tricks.

The Facts:

1. There are five houses in a row. Each house has one person living in it.
2. The English person lives in a red house.
3. The Spaniard has a dog.
4. The person who lives in the green house drinks coffee.
5. The Ukrainian drinks tea.
6. The green house is just to the right of the ivory house.
7. The person who eats tofu has a snail.
8. Oats are eaten in the yellow house.
9. The person in the middle house drinks milk.
10. The South African lives in the house furthest to the left.
11. The pizza eater lives next to the house with a fox.
12. The person who eats oats lives next to the house with a horse.
13. The fish eater drinks orange juice.
14. The Nepali eats donuts.
15. The South African lives next to the blue house.

The Questions:

- #1) Which person drinks water?
- #2) Which person has a zebra?

For Thursday. Puzzles!

- 1) Tim's and Wendy's ages add to 30 years. Three years ago, Tim was three times as old as Wendy. How old is Tim now?
- 2) The ages of Joan's children are 4, 7, 9, and 12. The sum of the ages of her daughters is 20 years. How many sisters does Joan's youngest child have?
- 3) Find two numbers whose product is 682 and sum is 73.

Measurement – Sheet #7

1) **Add or subtract.**

Give answer in the smallest unit.

a) $426\text{g} + 972\text{mg} =$

b) $0.023\text{km} + 375\text{cm} =$

c) $4.2\text{l} - 976\text{ml} =$

2) What is $\frac{3}{10}$ of 50kg in grams?

3) **Unit Cost.**

a) Bananas cost \$1.35 per kilogram. What is the cost of 12kg of bananas?

b) A 34m length of rope costs \$25.50. What is the cost per meter?

4) **Complete.**

a) $5\text{ cm} = \underline{\hspace{2cm}}\text{km}$

b) $0.2\text{ cm} = \underline{\hspace{2cm}}\text{m}$

c) $0.65\text{ km} = \underline{\hspace{2cm}}\text{m}$

d) $3\text{ gal} = \underline{\hspace{2cm}}\text{c}$

e) $10\text{ pt} = \underline{\hspace{2cm}}\text{gal}$

f) $84\text{ mg} = \underline{\hspace{2cm}}\text{g}$

g) $1344\text{ oz} = \underline{\hspace{2cm}}\text{lb}$

h) $9760\text{ mm} = \underline{\hspace{2cm}}\text{km}$

i) $473\text{ ml} = \underline{\hspace{2cm}}\text{l}$

j) $4\frac{3}{4}\text{ c} = \underline{\hspace{2cm}}\text{fl.oz}$

k) $6240\text{ min} = \underline{\hspace{2cm}}\text{day}$

l) $5.26\text{ kg} = \underline{\hspace{2cm}}\text{mg}$

5) A crate of apples has a weight of 230kg. When empty, the crate has a weight of 14kg. An average apple has a weight of 450g. How many apples are in the crate?

6) A certain car's gas tank can hold 45l of gasoline. The same car can travel 480km on a full tank (on the highway). What is the car's fuel efficiency in km/l? (i.e. how far can the car go on one liter of gas?)

- 7) A human pyramid is made up of people standing on each other's shoulders. The top row has one person, the second row has two, and so on. Each person is 1.8m tall, and the distance from their shoulders to the top of their head is 30cm.
- a) How tall would a 45-person pyramid be?

- b) How many people would be in a pyramid that is 6.3 m tall?

Mental Math

- 8) $700 \div 25 =$
9) $350 \div 25 =$
10) $825 \div 25 =$
11) $45^2 =$
12) $115^2 =$
13) $44 \cdot 25 =$
14) $26 \cdot 5 =$
15) $8 \cdot 99 =$

Review Section

- 16) Divisibility. State whether each number is evenly divisible by anything from 2 to 12 (but not 7).
- a) 381250

b) 6852318

- 17) Roots

a) $\sqrt{49000000}$

b) $\sqrt{25600}$

c) $\sqrt[4]{256}$

d) $\sqrt{784}$

- 18) Convert to a fraction.

a) 0.001

b) 0.42

c) 0.008

- 19) Division. Leave your answer as an exact decimal (perhaps repeating).

a) $34.1 \div 600$

- b) *Challenge!*
 $410 \div 0.0259$