

## Fifth Grade Cluster 6 Assessment – Measurement Conversion

**This assessment assesses students' ability to:**

- Convert between centimeters, meters, and kilometers
- Convert between inches, feet, and yards
- Convert between grams and kilograms
- Convert between ounces and pounds
- Convert between milliliters and liters
- Convert between cups, pints, quarts, and gallons
- Convert between seconds, minutes, and hours

**NCSCOS 2017 Standards:**

Standard	Questions
NC.5.MD.1	1, 2, 3, 4, 5, 6, 7, 8, 9, 10

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Question	Standard	Answer
1	NC.5.MD.1	C
2	NC.5.MD.1	B
3	NC.5.MD.1	C
4	NC.5.MD.1	A
5	NC.5.MD.1	D

Question	Standard	Answer
6	NC.5.MD.1	A
7	NC.5.MD.1	$\frac{3}{2}$ or $1\frac{1}{2}$
8	NC.5.MD.1	16
9	NC.5.MD.1	4
10	NC.5.MD.1	24,500

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

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1. Rosalita is making chocolate chip cookies.

- She needs 20 ounces of chocolate chips.
- She has  $2\frac{1}{4}$  pounds of chocolate chips.
- There are 16 ounces in 1 pound.

$$2\frac{1}{4} \times 16$$
$$16 + 16 + 4 = 36 \text{ oz}$$
$$\begin{array}{r} 36 \\ -20 \\ \hline 16 \text{ oz} \end{array}$$

How many ounces of chocolate chips will Rosalita have left after she makes her cookies?

- A 5 ounces                      B 7 ounces  
C 16 ounces                      D  $17\frac{3}{4}$  ounces

2. Eliot's backpack weigh 4,200 grams. 1 kilogram is 1,000 grams. How many kilograms does Eliot's back weigh?

- A  $4\frac{2}{1000}$  kilograms                      B  $4\frac{2}{10}$  kilograms  
C 42,000 kilograms                      D 420,000 kilograms

$$\frac{4200}{1000} = \frac{42}{10} = 4.2$$
$$4\frac{2}{10}$$

3. Lamar is a football player. In his best play, he ran 48 yards with the football scoring a touchdown. One yard is equal to three feet. How many feet did Lamar run with the football to score the touchdown?

- A 4 feet                                      B 16 feet  
C 144 feet                                      D 576 feet

$$\begin{array}{r} 48 \\ \times 3 \\ \hline 144 \end{array}$$

4. Adam wanted to play his video games. His mother told him that he needed to finish his homework, clean out the dishwasher, and clean his room before playing video games.

- He completed his homework in 48 minutes.
- He took 25 minutes to clean out the dishwasher.
- He took 75 minutes to clean his room. 1 hr 15 min

$$\begin{array}{r} 48 \\ +25 \\ \hline 73 \end{array}$$
$$1 \text{ hr } 15 \text{ min} + 1 \text{ hr } 13 \text{ min}$$
$$\hline 2 \text{ hr } 28 \text{ min}$$

There are 60 minutes in 1 hour. How much time did Adam have to spend doing homework and cleaning before playing video games?

- A 2 hours, 28 minutes                      B 2 hours, 46 minutes  
C 14 hours, 8 minutes                      D 148 hours



9. Bentley has a dog pen that is 144 inches long. There are 36 inches in one yard. How many yards long is Bentley's pen?

Answer:

4

$$144 \div 36$$

$$\begin{array}{r} 144 \\ 36 \overline{) 144} \phantom{0} \\ \underline{-72} \phantom{0} \\ 72 \phantom{0} \\ \underline{-72} \\ 0 \end{array} \quad \begin{array}{l} 2 \\ + \\ 2 \\ \hline 4 \end{array}$$

10. Celeste walked  $24\frac{1}{2}$  km this week for exercise. There are 1,000 meters in 1 kilometer. How many meters did Celeste walk?

Answer:

24 500m

$$\begin{array}{l} 24\frac{1}{2} \times 1000 \\ 24 \times 1000 + \frac{1}{2} \times 1000 \\ 24000 + 500 \\ 24500 \end{array}$$