Unit 3 Test Review

1) Write two other ways to represent division using the expression below:

$$\frac{2}{3} = 2 \div 3 = 3\overline{)2}$$

2) The product of a number and its reciprocal is always __one__.

$$\text{ex:- } \frac{2}{3} \times \frac{3}{2} = \frac{6}{6} = \boxed{1}$$

3) Give the reciprocal of the following numbers:

a) $\frac{3}{5} = \boxed{\frac{5}{3}}$

b) $5\frac{1}{2} \xrightarrow[\substack{MAD \\ X+}]{DO} \frac{11}{2} \longrightarrow \boxed{\frac{2}{11}}$

4) Which expression is equivalent to $\frac{3}{4} \div \frac{2}{3}$? $\longrightarrow \frac{3}{4} \times \frac{3}{2}$

1. Keep first Fraction.

2. multiply by the reciprocal of second fraction.

A) $\frac{2}{3} \div \frac{3}{4}$

B) $\frac{2}{4} \cdot \frac{3}{3}$

C) $\frac{3}{4} \cdot \frac{3}{2}$ (circled)

D) $\frac{4}{3} \div \frac{3}{2}$

5) A recipe calls for 2/3 c. of flour. Eva wants to make 1/4 of the recipe. How much flour will Eva need to use?

1 recipe calls for $\frac{2}{3}$ cups of flour

to make $\frac{1}{4}$ recipe:

multiply Numera. $\frac{2}{3} \times \frac{1}{4} = \frac{2}{12} \div 2 = \boxed{\frac{1}{6}}$ cups of flour
multiply Denom.

6) Which of the following statements is true?

Hint:
When a number is multiplied by a value less than 1, the number decreases.
When a number is multiplied by a value greater than 1, the number increases.

False.

~~A) $10 \cdot \frac{1}{5} > 10$~~

$\frac{10}{5} = 2 > 10$

False

~~C) $15 \cdot \frac{3}{4} > 15$~~

$\frac{45}{4} = 11\frac{1}{4} > 10$ ✓

True

B) $8 \cdot \frac{5}{4} > 8$ ✓

False $\frac{40}{4} = 10 > 8$ ✓

~~D) $16 \cdot \frac{4}{3} < 16$~~

$\frac{64}{3} = 21\frac{1}{3} < 16$

7) Grapes sell for $1.89 per pound. What would be the cost of $2\frac{1}{4}$ pounds of grapes?

$2\frac{1}{4} = 2.25$

4.2525

$\boxed{\$4.25}$

$$\begin{array}{r} 1.89 \\ \times\ 2.25 \\ \hline 0\,0\,9\,4\,5 \\ 0\,3\,7\,8\,0 \\ 3\,7\,8\,0\,0\ + \\ \hline 4\,2.5\,2\,5 \end{array}$$

4 decimal digits in the answr

8) Samantha is dividing 2.5 pounds of M&Ms into smaller bags. She is putting $\frac{1}{5}$ pound of M&Ms in each smaller bag. How many bags can she make?

turn the Fraction to a decimal first

$\frac{1}{5} = 5\overline{)1.0}^{\,0.2} = 0.2$

$$2\overline{)25.0}^{\,12.5}$$
$\begin{array}{l}2 \\ \overline{05} \\ 4 \\ \overline{10} \\ -10 \\ \overline{0}\end{array}$

$2{,}5 \div 0{,}2$

$\boxed{12.5 \text{ bags}}$

9) $39.52 \div 2.6 =$

$39{,}52 \div 2{,}6$

$\boxed{15.2}$

$$26\overline{)395.2}^{\,15.2}$$
$\begin{array}{l}26 \\ \overline{135} \\ -130 \\ \overline{52} \\ -52 \\ \overline{0}\end{array}$

10) $\dfrac{10}{12} \cdot \dfrac{1}{23}$

$\dfrac{10}{12} \times \dfrac{1}{23} = \dfrac{10}{276} = \boxed{\dfrac{5}{138}}$