A Review of Fractions, Decimals, and Percents; Two-Way Tables

FRACTIONS, DECIMALS, PERCENTS

1. Complete the following table of equivalent fractions, decimals, and percents. Round to the hundredth's place if necessary. The first one is completed for you.

Simplified Fraction	Decimal	Percent
$\dfrac{1}{10}$	0.1	10%
	0.01	
$\dfrac{1}{5}$		
		50%
$\dfrac{1}{3}$		
	0.25	
		75%
$\dfrac{2}{3}$		
	0.6	

2. In your own words explain each of the following procedures:
   a) Converting a fraction to a decimal:

   b) Converting a decimal to a percent:

   c) Converting a percent to a fraction:

ROUNDING DECIMALS

3. Convert the following fractions into decimal value, round to the nearest hundredth

    a) $\dfrac{1}{3}$

    b) $\dfrac{4}{9}$

    c) $\dfrac{5}{11}$

    d) $\dfrac{7}{6}$

4. Convert the following fractions into decimal value, round to the nearest thousandth

    a) $\dfrac{2}{3}$

    b) $\dfrac{9}{13}$

    c) $\dfrac{7}{3}$

    d) $\dfrac{26}{9}$

READING TWO-WAY TABLES

Students in a certain class were asked to name their favorite color from the following choices: Red, Yellow, or Blue. The results are in the table below.

	Male	Female	Total
Red	30	20	
Blue	15	10	
Yellow	5	20	
Total			

5. Use the table to answer the following questions:
   a) What percent of the total class is Male?

   b) What percent of the total class is Female?

   c) What percent of the total class liked Blue as their Favorite Color?

   d) What percent of the total Class liked Red?

   e) What Percent of the total class liked Yellow?

   f) Considering only the males, what proportion of them liked Red as their favorite color?

   g) Considering only the Females of the classroom, what proportion of them liked Yellow as their favorite

      color?

   h) Of the people who liked Blue what fraction of them were male?

   i) Of the people who liked Red what fraction of them were female?

   j) What is the probability if we randomly selected a person that they would be Male AND like Yellow?

6. Fill in the missing information on the following two-way table. On the blank next to the number, write the relative frequency for each of the events on the table.

Students were randomly selected and asked to name their favorite class from the following: Science, English, and Math. This results of the survey are below.

	English	Math	Science	Total
Girls	20	13		50
Boys		15		
Total	38		40	

7. Use your table to answer the following questions:
   a) What percentage of the students said Math was their favorite subject?

   b) What percentage of the students said Science was their favorite subject?

   c) Suppose we are randomly selecting a girl from this group, what is the likelihood that her favorite subject is English?

   d) Suppose we are randomly selecting a person from the group that liked Science the most, what is the probability that the selected student is also a boy?

8. An ad campaign claims that a new diet pill will reduce weight by 150 percent. What is wrong with this statement?

Use this scenario to answer the following three questions.
A polling company reported that 65 percent of 2403 surveyed adults said that texting and driving was dangerous.

9. What is the exact value of 65% of 2403? Round to the nearest Hundredth spot.

10. Explain in your own words why this could not be the actual number of adults who answered that texting and driving was dangerous?

11. What could be the actual number that said that texting and driving was dangerous?

12. Among the 2403 respondents, 350 said texting and driving was not dangerous. What percentage of respondents said that texting and driving was not dangerous?

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