MBF 3C Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

U2 D1 Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Unit 2 Prerequisite Skills: Fractions, Decimals, Percent and Graphs**

**Fractions to Decimals**

 To express a fraction as a decimal, take the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (top) and divide it by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (bottom).

Example 1: Express each fraction as a decimal.

**Decimals to Fractions**

To express a decimal as a fraction, follow these steps:

 Step 1: take the decimal and give it a denominator of 1

 Step 2: move the decimal place one to the right and add a zero to the denominator

 Step 3: repeat Step 2 until you no longer have any decimal places

 Step 4: reduce the fraction to lowest terms

Example 2: Express each decimal as a fraction.

a) 0.25 b) 0.68 c) 1.365 d) 0.333 . . .

**Percent to Fractions**

Percent means \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. You create a fraction by giving the percent number a denominator of 100, and then reducing the fraction to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Example 3: Express each percent as a fraction in lowest terms.

a) 18% b) 95% c) 33.333333 . . . %

**Fractions and Decimals to Percent**

To convert a fraction to a percent, we convert the fraction to a decimal and then multiply by 100.

Example 4: Express the following as percents.

1. 0.43

**Working with Fractions**

To **add or subtract fractions**, we must have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Once you have a common denominator, you keep the denominator and then add or subtract the numerators.

Example 5: Evaluate and simplify to lowest terms.

To **multiply fractions**, multiply the numerators together and multiply the denominators together, then reduce to lowest terms.

Example 6: Evaluate and simplify to lowest terms.

In mathematics, the word “of” is often used to imply \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Example 7: Evaluate.

1. of 40
2. of 340

Types of Graphs

**Bar graphs** are used to represent \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ data. Because there is no numerical relationship between the responses, there are spaces between the bars of a bar graph.

Example 8: A poll was held at St. James and 60 students were asked what their favourite colour

 is. The results are summarized in the table below. Represent the data with a bar

 graph.

|  |  |  |  |
| --- | --- | --- | --- |
| **Favourite Colour** | **Red** | **Blue** | **Green** |
| **Frequency** | 30 | 21 | 9 |

**Circle graphs**, or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, are used to represent data that is in percent form. To determine what portion of the circle represents each percentage, we calculate the angle:

***angle = percent as decimal 360°***

Example 9: Represent the favourite colour data from example 8 using a circle graph.

Note: Table is in numbers, not percent, but we know how many people were surveyed so we can get the percentages.

|  |  |  |  |
| --- | --- | --- | --- |
| **Favourite Colour** | **Red** | **Blue** | **Green** |
| **Frequency** | 30 | 21 | 9 |
| **Fraction** |  |  |  |
| **Decimal** |  |  |  |
| **Percent** |  |  |  |
| **Angle** |  |  |  |

**Histograms** are used to represent numerical data that is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. There are no spaces between the bars.

