**Finding Percent Using**

**Benchmarks, Mental Math, and Common Sense**

**I. Benchmark Percents:** You can find certain percentages IN YOUR HEAD. These are called benchmarks. The percent benchmarks are listed below. See if you know how to find these in your head.

**Finding 100%: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Finding 50%: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Finding 25%: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Finding 10%: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Finding 5%: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Finding 1%: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**II. Let’s Practice!!!** Find the benchmarks of each whole. Make sure you label bar.

1.) **80**

100% = \_\_\_\_ 50% = \_\_\_\_ 25% = \_\_\_\_ 10% = \_\_\_\_ 5% = \_\_\_\_ 1% = \_\_\_\_

2.) **120**

100% = \_\_\_\_ 50% = \_\_\_\_ 25% = \_\_\_\_ 10% = \_\_\_\_ 5% = \_\_\_\_ 1% = \_\_\_\_

3.) **90**

100% = \_\_\_\_ 50% = \_\_\_\_ 25% = \_\_\_\_ 10% = \_\_\_\_ 5% = \_\_\_\_ 1% = \_\_\_\_

**III. Multiples of Benchmarks:** You can use scale factor to find multiples of your benchmark percents (ex: 30%, 35%, 8%,75%, etc.)

4.) **What is 75% of 88?**

Which benchmark will help you? \_\_\_\_ Use SF to get to 75%.

5.) **What is 90% of 120?**

Which benchmark will help you? \_\_\_\_ Use SF to get to 90%.

6.) **What is 35% of 60?**

Which benchmark will help you? \_\_\_\_ Use SF to get to 35%.

**IV. Applying Your Knowledge:** See if you can use what you have just learned to solve a real world problem.

7.) The graph shows the monthly budget for the Bright family. If their monthly income is $2000, how much do they spend on each expense per month?

|  |  |  |
| --- | --- | --- |
| Item | Percent | Amount Spent |
| Mortgage | 25% |  |
| Food | 15% |  |
| Travel | 11% |  |
| Clothing | 8% |  |
| Other | 41% |  |

**Fill in the missing fractions, decimals and percents in the table.**

|  |  |  |  |
| --- | --- | --- | --- |
| (Simplified) Fraction | Fraction (100ths) | Decimal | Percent |
|  | 25/100 |  |  |
|  |  | 0.40 |  |
| 3/8 |  |  |  |
|  |  |  | 5% |
|  |  |  | 75% |
|  |  | 0.44 |  |
| 13/20 |  |  |  |
|  |  | 0.68 |  |
| 30/200 |  |  |  |
|  |  |  | 22% |
|  | 12/100 |  |  |
| 23/25 |  |  |  |
|  |  |  | 62.5% |
|  | 50/100 |  |  |
| 90/200 |  |  |  |
|  | 66/100 |  |  |
|  |  | 0.875 |  |
| 23/50 |  |  |  |
|  |  | 0.20 |  |