

## Know Basic Percent-Fraction-Decimal Equivalences- multiples of 25%

### Mental Math Strategy

**When to use this strategy:** Use this strategy when you are finding percents and it is near  $\frac{1}{4}$ ,  $\frac{1}{2}$ , or  $\frac{3}{4}$ .

**How to use this strategy:**  $\frac{1}{4} = 25\%$ ,  $\frac{1}{2} = 50\%$ , and  $\frac{3}{4} = 75\%$ . Reduce the fraction. If it is  $\frac{1}{4}$ ,  $\frac{1}{2}$ , or  $\frac{3}{4}$ , then you are done, write the percent. This can be used for estimation and for mixed numbers (e.g.,  $\frac{5}{4} = 1\frac{1}{4} = 125\%$ ).

Examples:  $\frac{6}{12} = \frac{1}{2} = .5 = 50\%$

$$\frac{70}{280} = \frac{7}{28} = \frac{1}{4} = 25\%$$

$$\frac{87}{87} = 1 = 100\%$$

Use this (new) strategy on the following:	
1.) If the Chargers won 15 out of 20 games, what is their winning percentage?	2.) A survey polled 106 middle school students and 53 students favored the new lunch menus. What percent favored the new menus?
3.) If the Bears won 8 of 16 games, what is their winning percentage?	4.) If Sammy has 9 hits in 36 at bats, what is his batting average (which is a decimal given to three places)?

Use any strategy you know on the following:	
5.) Simplify $(-14)(-15)$	6.) Your new job pays \$9.10 an hour. How much money will you make in 6 hours?
7.) Simplify: $\frac{7200t^2}{9t^6}$	8.) If 30 people of 120 surveys chose football as their favorite sport, what percent chose football?