Algebra

December 5 - 9

- Monday, December 5, 2011
- SW work on Study Island
  - Grade 8
  - Rates, Ratios, Proportions, & Percents : Read over lesson and complete 15 questions with a score of 70% or better

1. Complete study island assignment
2. Read and take notes on Pages 219-221
3. Complete Homework: Page 701-702; Lesson 5-3; 1-28 every third/Lesson 5-4; 1-16 every third/Lesson 5-5; 1-22 every third

- Tuesday, December 6, 2011
- SW learn to find the probability and odds of a simple event

1. SW complete a review quiz upon entering the classroom
2. CW review student notes on probability and odds and work through various examples together
3. SW work on class work assignment with a partner
4. SW begin homework if time permits

- Probability:
  chances of an event happening
  $P(\text{event}) = \frac{\#\text{ of fav o.c.}}{\#\text{ of pos o.c.}}$ (what you want) (all outcomes)
  (event = what you are looking for)
  Probability: final answer is a fraction
- Odds: chance of an event occurring
  $\text{Odds} = \frac{\#\text{ of fav o.c.}}{\#\text{ of unfav o.c.}}$ – what you don't want
  Odds: written as ratio using a colon (:)
- Random:
  all outcomes have an equal chance of happening

- Theoretical Probability:
  probability of what should occur
- Use the graph on page 220. If a person is chosen at random, what is the probability that the person is age 5-17?
  $P(\text{age 5-17}) = \frac{6}{3+6+3+5+5+4+2+4} = \frac{6 \div 2}{32 \div 2} = \frac{3}{16}$
- What is the probability that a month picked at random starts with the letter J?
  $P(\text{Months starting w/ J}) = \frac{3}{12} \div \frac{3}{3} = \frac{1}{4}$

- Experimental Probability:
  probability of what did occur
- A systems technician at a large corporation monitored their e-mail system for one hour and found that employees sent 550 e-mail messages, of which 375 were sent to e-mail accounts outside the company.

1. Find the experimental probability that a randomly chosen e-mail message is being sent outside the company.
   $P(\text{outside email}) = \frac{375 \div 25}{550 \div 25} = \frac{15}{22}$
2. If the percent of e-mails sent outside the company is greater than 65%, the company will increase its number of outside phone lines. Does the company need to increase its number of outside phone lines?
   $\frac{15}{22} > \frac{r}{100}$ $\quad \frac{22r}{22} = \frac{1500}{22}$ $\quad r = 68.18\%$
   Yes

- Odds:

1. A coin is randomly removed from a change purse that contains 7 pennies, 8 nickels, and 5 quarters. What are the odds that the coin is a ~~nickel~~?

Odds: $\frac{8}{12} \div 4 = \frac{2}{3}$ 2:3

2. If a spinner with even numbers 2-16 is spun, what are the odds of a number greater than 10? 2, 4, 6, 8, 10, 12, 14, 16

Odds: $\frac{3}{5}$ 3:5

- Class work: Page 222; 1-8 all
- Homework: Page 222-223; 10-20 even, 21-24 all

- Wednesday, December 7, 2011
- SW review concepts for using the percent proportion, percent equation, percent of increase/decrease, and finding probability and odds

1. SW complete a review quiz upon entering the classroom
2. CW review student notes from the last 2 weeks
3. SW work on review packet of Lessons 5-3 through 5-6 with a partner – even questions
4. SW begin homework if time permits-Odd problems from packet

- Thursday, December 8, 2011
- SW have the entire class period to complete Test 7 over lessons 5-3 through 5-6
- Homework: work on projects due December 12.
- Read and take notes on pages 224-227

- Friday, December 9, 2011
- SW review various concepts for the CRT test.
- CW review packet completed previous week, working through all of the problems whole group.
- Homework: Work on project due December 12.