## Tuesday, October 30, 2012

Reminder: If you have a signed quiz please have it out on your desk while you are working on your TISK problems.

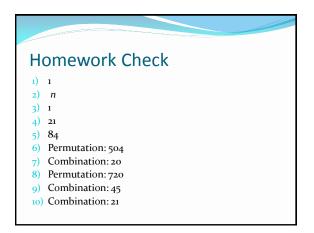
## TISK Problems:

- 1) Find the common difference: 21, 11, 5, 3, 5, 11, ...
- 2) Simplify: -8x + 4y (6x 3y)
- 3) Determine the probability that a fair six-sided spinner lands on a multiple of 4.

## No Mental Math today.

Homewor

Independent & Dependent Events workshee



## **Independent & Dependent Events**

What does it mean to be independent?

Two events are independent if the outcomes of one event have no effect on the outcomes of the other event.

• What does it mean to be dependent?

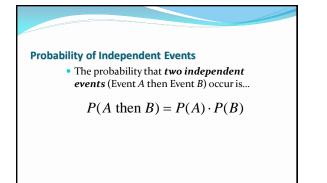
Two events are dependent if the outcomes of the first event change the outcomes of the second event.

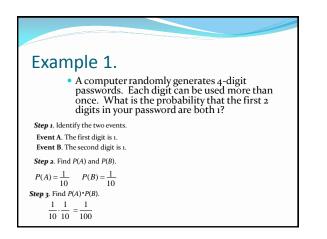
• Give an example of two random events that would be independent. Event A: Rolling a 3 on a fair die. Event B: Spinning a 3 on a fair spinner.

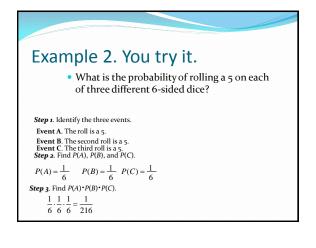
• Can you think of 2 random events that would be dependent?

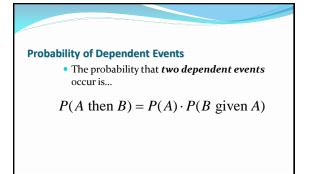
Event A: Picking a red card out of a deck of cards.

Event B: Without replacing the first, pick a second red card.









Example 3.	
Liample 5.	
<ul> <li>A jar of jelly beans contains 50 red jelly beans, 45 yellow jelly beans, and 30 green jelly beans. You reach into the jar and randomly select a jelly bean, then select another without putting the first jelly bean back. What is the probability that both jelly beans drawn are red?</li> <li>Step 1. Identify the two events.</li> </ul>	
Event A. The first jelly bean is red.	
Event B. The second jelly bean is red.	
<b>Step 2</b> . Find <i>P</i> ( <i>A</i> ) and <i>P</i> ( <i>B</i> given <i>A</i> ).	
$P(A) = \frac{50}{125} = \frac{2}{5}$ $P(B \text{ given } A) = \frac{49}{124}$	
Step 3. Find $P(A) \cdot P(B \text{ given } A)$ .	
× 49 49	
$\frac{1}{5}\frac{1}{124} = \frac{1}{310}$	

