Alg 1 Week 15 Fri Warm Up

1. Skill 19: Multiply and Divide Rational Expressions

Simplify the polynomial completely.

$$\frac{3x^2-24x}{12x+24} \div \frac{x^2-16x+64}{4x^2+8x}$$

2. Skill 20: Construct a box and whisker plot for a set of data, and find the mean and range round to nearest tenth if needed.

video game prices: $29, $29, $50, $39, $45, $20, $40

min	Q1	Med	Q3	max

Range___

Mean____

3. Simplify completely or solve, as indicated.

a. $\sqrt{8}-4\sqrt{2}$

b. $\sqrt{5x+11}=\sqrt{7x-1}$

c. $2x=\sqrt{14x-6}$

d. $\dfrac{\sqrt{z^3}}{\sqrt{5z}}$

Notes 12-8 Compound Events

A **compound event** is two or more events connected by the words "and" or "or."

When two events have no outcomes in common, the events are **mutually exclusive events.** If A and B are mutually exclusive events, then $P(A \text{ and } B) = 0$. When events have at least one outcome in common, they are **overlapping events.**

You need to determine whether two events A and B are mutually exclusive before you can find $P(A \text{ or } B)$.

take note

Key Concept Probability of *A* or *B*

Probability of Mutually Exclusive Events

If A and B are mutually exclusive events, $P(A \text{ or } B) = P(A) + P(B)$.

Probability of Overlapping Events

If A and B are overlapping events, $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$.

Problem 1 Mutually Exclusive and Overlapping Events

Suppose you spin a spinner that has 20 equal-sized sections numbered from 1 to 20.

A **What is the probability that you spin a 2 or a 5?**

B **What is the probability that you spin a number that is a multiple of 2 or 5?**

Got It? **1.** Suppose you roll a standard number cube.

a. What is the probability that you roll an even number or a number less than 4?

b. What is the probability that you roll a 2 or an odd number?

Skill Test 20.1

Complete CW/HW: 12-8 all

12-8 Wk 15 HW

Probability of Compound Events

You spin a spinner that has 12 equal-sized sections numbered 1 to 12. Find each probability. BE SURE TO CHECK FOR OVERLAP!!!!!!!

1. P(3 or 4)

2. P(even or 7)

3. P(even or odd)

4. P(multiple of 3 or odd)

5. P(odd or multiple of 5)

6. P(less than 5 or greater than 9)

7. P(even or less than 8)

8. P(multiple of 2 or multiple of 3)

9. P(odd or greater than 4)

10. P(multiple of 5 or multiple of 2)