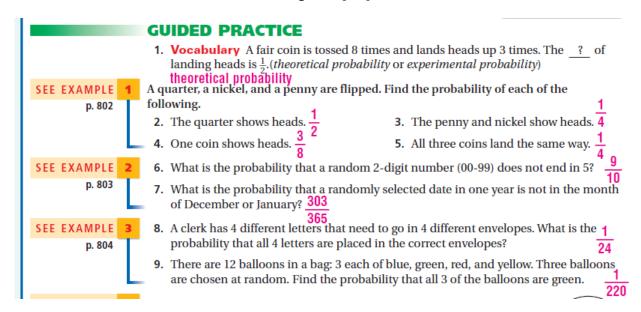
## Algebra II

### Review from Textbook - Examination XI - KEY

### Page 798 [1-6]

### KETWORD, IVID/ FAIRIL GUIDED PRACTICE Vocabulary When you open a rotating combination lock, order is ? (important or not important), so this is a ? (permutation or combination). important; permutation SEE EXAMPLE 2. Jamie purchased 3 blouses, 3 jackets, and 2 skirts. How many different outfits using a p. 794 blouse, a jacket, and a skirt are possible? 18 3. An Internet code consists of one digit followed by one letter. The number zero and the letter O are excluded. How many codes are possible? 225 SEE EXAMPLE 4. Nate is on a 7-day vacation. He plans to spend one day jet skiing and one day golfing. How many ways can Nate schedule the 2 activities? 42 p. 796 How many ways can you listen to 3 songs from a CD that has 12 selections? 1320 6. Members from 6 different school organizations decorated floats for the homecoming parade. How many different ways can first, second, and third prize be awarded? 120

### Page 806 [1-9]



# Algebra II

## **Review from Textbook – Examination XI - KEY**

## Page 815 [1-9]

GUIDED PRACTICE				
<ol> <li>Vocabulary Two events are _ ? if the occurrence of one event does not affect the probability of the other event. (independent or dependent) independent</li> </ol>				
SEE EXAMPLE	Find each probability.			
p. 811	<ul> <li>2. rolling a 1 and then another 1 when a number cube is rolled twice           <sup>1</sup>/<sub>36</sub> </li> <li>3. a coin landing heads up on every toss when it is tossed 3 times           <sup>1</sup>/<sub>8</sub> </li> </ul>			
SEE EXAMPLE	Two number cubes are rolled—one blue and one yellow. Explain why the events are			
p. 812	p. 812 dependent. Then find the indicated probability. 4. The blue cube shows a 4 and the product is less than 20.			
5. The yellow cube shows a multiple of 3, given that the product is 6. $\frac{1}{2}$				
SEE EXAMPLE	The table shows the results of a quality-	Lightbulb Quality		
p. 813	control study of a lightbulb factory. A lightbulb from the factory is selected at		Shipped	Not Shipped
	random. Find each probability. 471	Defective	10	45
	<ol> <li>that a shipped bulb is not defective 476</li> </ol>	Not Defective	942	3
7. that a bulb is defective and shipped 1 100				
SEE EXAMPLE	4 A bag contains 20 checkers—10 red and 10 black. Determine whether the events are			
p. 814	independent or dependent. Find the indicated probability.  8. selecting 2 black checkers when they are chosen at random with replacement			
9. selecting 2 black checkers when they are chosen at random without replacement				

## Algebra II

## Review from Textbook - Examination XI - KEY

### Page 822 [2-8]

A bag contains 25 marbles: 10 black, 13 red, and 2 blue. A marble is drawn from the bag at random. SEE EXAMPLE 2. Explain why the events "getting a black marble" and "getting a red marble" are mutually exclusive. A marble is either black or red. p. 819 3. What is the probability of getting a red or a blue marble?  $\frac{3}{5}$ 4. A car approaching an intersection has a 0.1 probability of turning left and a 0.2probability of turning right. Explain why the events are mutually exclusive. What is the probability that the car will turn? The car cannot turn both left and right; 0.3. SEE EXAMPLE Numbers 1-10 are written on cards and placed in a bag. Find each probability. p. 820 choosing a number greater than 5 or choosing an odd number. 6. choosing an 8 or choosing a number less than 5 7. choosing at least one even number when selecting 2 cards from the bag SEE EXAMPLE Five years after 650 high school seniors graduated, 400 had a college degree and 310 were married. Half of the students with a college degree were married. p. 821 8. What is the probability that a student has a college degree or is married? 51 9. What is the probability that a student has a college degree or is not married?