

Worksheet 10-8 - PreAlgebra

Probability of Compound Events

Find the total number of outcomes in each situation.

1. Joan randomly dials a seven-digit phone number.
2. First-year students at a school must choose one each of 5 English classes, 4 history classes, 5 math classes, and 3 physical education classes.
3. One card each is drawn from four different standard decks of cards.
4. A store offers running shoes with either extra stability or extra cushioning from four different manufacturers.
5. A winter sweater comes in wool or fleece, with a zipper or a crew neck, and in three colors.
6. One spinner can land on red, green, blue, or yellow and another can land on right foot, left foot, right hand, or left hand. Each spinner is spun once.

Find each probability.

7. A number cube is rolled. What is the probability of rolling a four or lower?
8. A number cube is rolled. What is the probability of getting a five or higher?
9. An eight-sided die is rolled and a coin is tossed. What is the probability of landing on an even number and getting heads?
10. A coin is tossed and a card is drawn from a standard deck of cards. What is the probability of landing on heads and choosing a heart?
11. How many fruit smoothies are possible from 6 choices of fruit, 4 choices of milk, and 3 sizes?
12. A school's class rings can include a student's initials in an engraved monogram on the ring. How many different monograms are possible from 2 sizes, 5 type styles, and 3 border styles?
13. The table shows the features you can choose for a pay-as-you go phone plan.
 - a. How many phone plans have national long distance?
 - b. How many customized phone plans include 100 minutes per month talking time and paging capabilities?

Phone	Features	Calling Area	Monthly Talk Time
Brand A;	e-mail only;	local only;	30 min;
Brand B	paging only;	regional;	60 min;
	deluxe:	national	100 min
	paging and	long	
	e-mail	distance	