



MIXED REVIEW FOR TEKS

Lessons 10.1–10.3

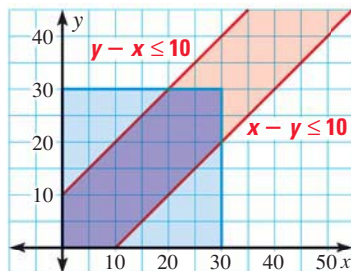
MULTIPLE CHOICE

1. **MOVIE THEATER SEATING** Five people walk into a movie theater and look for empty seats in which to sit. What is the number of ways the people can be seated if there are 8 empty seats? **TEKS a.1**

- (A) 20
- (B) 56
- (C) 336
- (D) 6720

2. **ARRIVAL TIMES** You and a friend are meeting at a gym. You both agree to arrive between 9:00 A.M. and 9:30 A.M. and will wait for each other for up to 10 minutes. Let x be your arrival time and let y be your friend's arrival time (where x and y are in minutes after 9:00 A.M.).

In the graph below, the blue region represents times such that you and your friend both arrive between 9:00 A.M. and 9:30 A.M., and the red region represents times such that the two of you arrive no more than 10 minutes apart. What is the approximate probability that you and your friend will meet if you both arrive between 9:00 A.M. and 9:30 A.M.? **TEKS a.4**

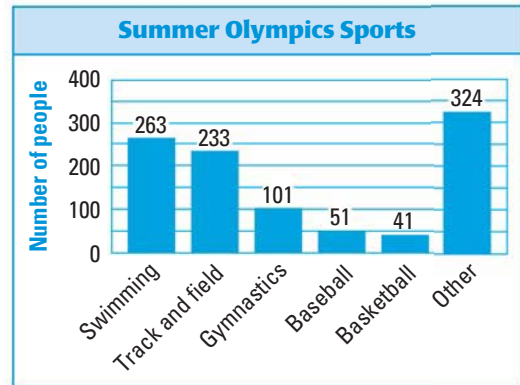


- (F) 0.333
- (G) 0.444
- (H) 0.556
- (J) 0.889

3. **GRADUATION REQUIREMENTS** You must take 18 elective courses to meet your graduation requirements for college. There are 30 courses that you are interested in. How many different course selections are possible? **TEKS a.1**

- (A) 30,045,015
- (B) 86,493,225
- (C) 4.1×10^{16}
- (D) 5.5×10^{23}

4. **SUMMER OLYMPICS** The graph shows the results of a survey in 2004 that asked U.S. adults which sport they would most like to participate in at the Summer Olympics. What is the approximate probability that a randomly selected U.S. adult would most like to participate in track and field? **TEKS a.1**



- (F) 0.23
- (G) 0.26
- (H) 0.3
- (J) 0.338

5. **OMELETS** A restaurant offers 8 different ingredients for an omelet. In a deluxe omelet, you can have up to 6 ingredients. How many different combinations of ingredients can you have? **TEKS a.1**

- (A) 28
- (B) 218
- (C) 219
- (D) 247

GRIDDED ANSWER

6. **FRUIT SMOOTHIES** You want to make a fruit smoothie using 3 of the fruits listed. How many different fruit smoothies can you make? **TEKS a.1**

Available Fruits	
Orange	Strawberry
Banana	Pineapple
Kiwi	Watermelon
Canteloupe	Peach