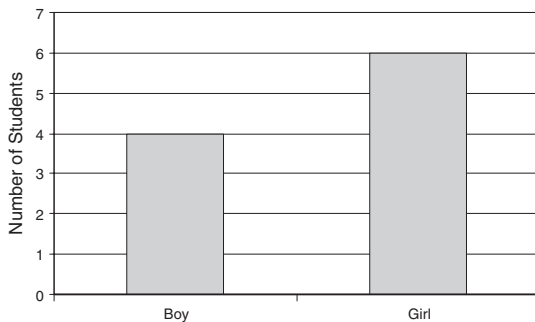


CHAPTER 11 **Chapter Test**
Form A

Select the best answer.

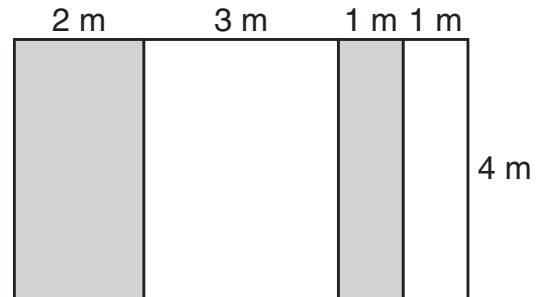
1. A musician has 5 songs she can play at an open mic night. How many different ways can she play 2 of them?
A 10 **B** 20
2. A printer has 8 colors of ink, but can only pick 3 to use on a flyer that he is printing. How many different color combinations can he choose?
A 24 **C** 120
B 56
3. A math class is made up of 11 boys and 10 girls. How many ways can the teacher choose one boy and one girl to solve a problem for the class?
A 110 **B** 121
4. The graph below shows the number of boys and the number of girls on a school's debate team.



If a student is chosen at random from the team, what is the probability that the student is a boy?

- A** 0.4 **B** 0.6
5. A coin is flipped three times. What is the probability that the result is tails all three times?
A 0.125 **C** 0.25
B 0.167

6. What is the approximate probability that a point chosen inside the rectangle is in the shaded region?



- A** 0.29 **C** 0.48
B 0.43
7. A coin and a number cube are tossed at the same time. What is the probability that the coin shows tails and the number cube shows a 2, 3 or 4?
A 0.25 **B** 0.50
 8. A store is keeping track of the customers who enter a certain department and whether or not they buy. The results are shown below.

Customers by Gender		
	Men	Women
Bought	7	4
Didn't Buy	5	9

What is the approximate probability that a customer from this group made a purchase?

- A** 0.44 **B** 0.56
9. What is the mean of the data set {0, 2, 4, 8, 16, 36} ?
A 8.0 **C** 11.0
B 12.0

CHAPTER 11 **Chapter Test**
Form A continued

10. Of the 200 seniors graduating, 45 took an art class while in high school and 89 were in the band. Only 20 of the students who took an art class were not also in band. What is the probability that a graduate chosen at random was in the band or had taken an art class?

- A 0.55 B 0.67

11. If 4 friends are choosing from 8 different drinks at a refreshment stand, what is the probability that at least 2 of the friends order the same drink?

- A 0.25
B 0.50
C 0.59

12. This data represent the number of books Sarah read each month:
{1, 1, 3, 3, 4}.

What is the approximate standard deviation of the data set?

- A 1.2 B 2.4

13. The probability distribution of the number of piglets per litter on a farm is given below.

Piglet Births per Litter			
n piglets	4	5	6
Probability of n piglets	0.2	0.4	0.4

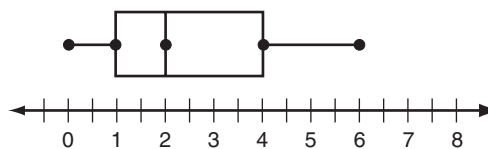
What is the expected number of piglets per litter on this farm?

- A 4.8
B 5.0
C 5.2

14. What is the approximate variance of the data set {0, 0, 1, 2, 3}?

- A 1.17
B 1.36
C 2.34

15. A weatherperson records how much rain, in inches, falls each day in the first week of a month. She makes a box-and-whisker plot of the data, shown below.



Which could be the data the weatherperson recorded?

- A {0, 1, 1, 2, 4, 4, 6}
B {0, 0, 1, 2, 2, 4, 6}

16. A caterer records the number of weddings he works during 5 weeks of the summer: {0, 3, 4, 3, 6}. If he caters 3 weddings the next week, in what ways do the mean and standard deviation of the data set change?

- A The mean increases, the standard deviation decreases
B The mean decreases, the standard deviation increases
C The mean decreases, the standard deviation decreases

17. 4 out of 5 dentists prefer a new mouthwash. If 5 dentists are chosen at random from the phonebook, what is the approximate probability that exactly 3 of them will prefer the new mouthwash?

- A 0.051
B 0.173
C 0.205

Answer Key Algebra 2

CHAPTER 11

Chapter Test Form A: Multiple Choice

- | | |
|------|-------|
| 1. B | 10. A |
| 2. B | 11. C |
| 3. A | 12. A |
| 4. A | 13. C |
| 5. A | 14. B |
| 6. B | 15. A |
| 7. A | 16. C |
| 8. A | 17. C |
| 9. C | |