



# MIXED REVIEW FOR TEKS

**TAKS PRACTICE**  
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## Lessons 11.3–11.5

### MULTIPLE CHOICE

1. **BIOLOGY** A biologist caught, measured, weighed, and then released eight Maine landlocked salmon. The table shows each fish's length  $x$  (in inches) and weight  $y$  (in pounds). Which equation is the best model for the data? Use a graphing calculator to find the answer. **TEKS 2A.1.B**

$x$	10.3	15.2	16.2	16.4
$y$	0.4	1.0	1.3	1.3
$x$	17.5	18.1	22	23.6
$y$	1.7	2.0	3.5	4.2

- (A)  $y = 0.0688(1.20)^x$   
 (B)  $y = 0.525x^2 - 0.502x + 3.18$   
 (C)  $y = 0.332x - 3.84$   
 (D)  $y = 0.000321x^{3.01}$
2. **SHOPPING SURVEY** In a survey of 1022 people who shop online, 73% said that they do so because of the convenience. What is the approximate margin of error for the survey? **TEKS a.1**
- (F)  $\pm 2.9\%$   
 (G)  $\pm 3.1\%$   
 (H)  $\pm 3.7\%$   
 (J)  $\pm 7.3\%$
3. **SHOE SIZE** The table shows the shoe size of a certain boy at different ages (in years). What is the most reasonable prediction for the boy's shoe size at age 17? Use a quadratic model obtained from a graphing calculator to find the answer. **TEKS 2A.1.B**

Age	6	7	8	10
Shoe size	5	6	7	9
Age	12	14	15	16
Shoe size	10	11	11	12

- (A) 10                      (B) 11  
 (C) 12                      (D) 13

4. **SPORTS SURVEY** A local sports TV station wants to determine the average number of hours per week people in the viewing area watch sporting events on television. The station surveys people at a nearby sports stadium. Which type of sample is described? **TEKS a.6**
- (F) Self-selected      (G) Systematic  
 (H) Convenience      (J) Random
5. **SUPERMARKET SURVEY** A survey shows that the time spent by shoppers in a certain supermarket is normally distributed with a mean of 45 minutes and a standard deviation of 12 minutes. What is the approximate probability that a randomly chosen shopper spends between 45 and 69 minutes in the supermarket? **TEKS a.1**
- (A) 0.475                      (B) 0.4985  
 (C) 0.95                      (D) 0.997
6. **STUDENT SURVEY** A survey claims that 15% of high school students prefer having gym class during the last period of the day. The survey reports a margin of error of  $\pm 5\%$ . About how many students were surveyed? **TEKS a.1**
- (F) 20                      (G) 44  
 (H) 133                      (J) 400

### GRIDDED ANSWER 0 1 2 3 4 5 6 7 8 9

7. **TREE HEIGHT** At a tree nursery, the heights of scotch pine trees are normally distributed with a mean of 200 centimeters and a standard deviation of 20 centimeters. Find the percent of scotch pine trees that have a height of at least 220 centimeters. Round your answer to the nearest whole number. **TEKS a.1**

