2006:

5 Lavonda learned to ride a unicycle. She practiced riding the unicycle for 25 minutes on Monday, 10 minutes on Tuesday, 22 minutes on Wednesday, 31 minutes on Thursday, and 13 minutes on Friday. What is the **range** for the data?

A 5 minutes

B 12 minutes

C 21 minutes

D 31 minutes

12 Heather stands in the lunch line at school. For her meal, she can choose spaghetti or pizza. She can also have apple juice, orange juice, or milk. How many different combinations of one meal and one drink can Heather choose?

F 2

G 3

H 5

J 6

25 Keisha has one penny, one nickel, and one dime in her pocket. She randomly takes one coin out of her pocket. Without putting it back, she randomly takes out another coin. If Keisha lists all the possible outcomes of picking the two coins one at a time, how many outcomes are there?

A 2

B 3

C 4

D 6

30 Karen surveyed students in one middle school about their favorite band. Of the 1,156 students in the middle school, 65 sixth-grade students were surveyed. More than half of the 65 students said their favorite band is Rhonda and the Gees. Based on the survey, Karen says most middle school students' favorite band is Rhonda and the Gees. Why is Karen's statement incorrect?

F Karen surveyed too many students.

G Karen's survey sample was too small.

H Karen did not survey any high school students.

J Karen did not include enough bands in the survey.

2007:

10 Pam wants to buy a suitcase. The order form she uses is shown below.

SUITCASE ORDER FORM

Colors available (choose one):	__Tan __Blue __Green __Black __Red
Sizes available:	__Small __Medium __Large
Material:	__Leather __Nylon

How many different combinations of color, size, and material are possible for Pam's suitcase?

A 10

B 15

C 24

D 30

13 The annual salaries of the employees working at Kevin's restaurant are listed below.

$21,750.00	$33,500.00	$18,900.00	$22,965.00
$30,080.00	$47,250.00	$37,750.00	$46,500.00

What is the range for these salaries?

A $24,750.00

B $25,500.00

C $27,600.00

D $28,350.00

17 A reporter for a teen magazine surveys teenagers leaving Hot Shots clothing store to determine which brand of clothing teens like best. Which statement best explains why the results of this survey may **not** be valid?

A The survey should have been conducted online.

B The group surveyed consisted only of teenagers.

C The survey was conducted by a reporter from only one magazine.

D The group surveyed consisted only of teenagers who shopped at the same store.

21 Rachel has 5 silver bracelets and 2 gold bracelets in her jewelry box. Rachel randomly picks one bracelet. Which statement **best** describes which bracelet she will probably pick?

A She probably will pick a gold bracelet.

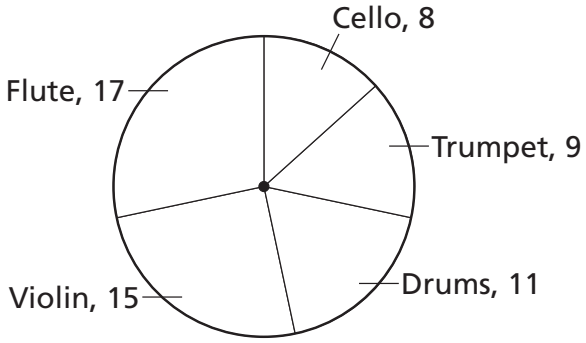
B She definitely will pick a gold bracelet.

C She probably will pick a silver bracelet.

D She definitely will pick a silver bracelet.

22 The circle graph below shows the number of students who play instruments in the school orchestra.

NUMBER OF STUDENTS PLAYING INSTRUMENTS



What percent of the total number of students in the school orchestra play the violin?

A 15%

B 25%

C 33%

D 75%

24 The table below shows the bowling scores of 125 students.

BOWLING SCORES

Scores	Number of Students
Under 100	28
100–125	52
126–150	30
151 and up	15

What is the experimental probability that the next student who bowls will have a score that is 126 or more?

A $\frac{15}{125}$

B $\frac{30}{125}$

C $\frac{45}{125}$

D $\frac{80}{125}$

2008:

16 A number cube is a cube with each side labeled with a number 1 through 6. Debbie rolled a number cube 60 times. The tally table below shows the number of times each number, 1 through 6, appeared.

ROLLING A NUMBER CUBE

Number on the Cube	Number of Rolls
1	𝍸 |
2	𝍸 𝍸 𝍸
3	𝍸 𝍸 𝍸 |||
4	𝍸 𝍸 |
5	|||
6	𝍸 ||

Before her experiment, Debbie expected each number on the cube to appear an equal number of times. Which statement **best** compares the results of Debbie's rolls with her expectations?

A Debbie rolled more 5s than expected.

B Debbie rolled fewer 4s than expected.

C Debbie rolled more 3s than expected.

D Debbie rolled fewer 2s than expected.

24 A box contains 3 pens, 2 markers, and 1 highlighter. Tara selects one item at random and does not return it to the box. She then selects a second item at random. What is the probability that Tara selects 1 pen and then 1 marker?

A $\frac{5}{36}$

B $\frac{27}{30}$

C $\frac{6}{30}$

D $\frac{6}{36}$

28 There are 500 students in Andrew's school. Andrew wants to survey a sample of students to determine the most popular school subject. Which sampling method is the **best** to use to predict the most popular school subject?

A randomly select 50 students from the student list of 500

B randomly select 10 students having lunch in the cafeteria

C select the first 50 girls entering the auditorium for an assembly

D select the first 25 students leaving the building after school

2009:

12 Hiral performs an experiment by randomly selecting different-colored marbles from a jar. The results of his experiment are shown in the table below.

Marble Color	Frequency
Green	5
Blue	11
Red	8
Yellow	1

Based on the data, what is the probability that the next marble Hiral selects will be blue or red?

A $\frac{1}{25}$

B $\frac{6}{25}$

C $\frac{19}{25}$

D $\frac{24}{25}$

27 Peter has 6 sweaters, 4 pairs of jeans, and 3 pairs of shoes. How many different outfits can Peter make using one sweater, one pair of jeans, and one pair of shoes?

A 13

B 36

C 72

D 144

2010:

3 The prices of plasma televisions at an electronics store are shown below.

$1,544 $1,242 $2,285 $1,116 $1,899 $1,649 $1,423 $1,242

What is the range of the prices of these plasma televisions?

A $1,043

B $1,169

C $1,242

D $1,484

5 A box contains 6 red pens and 4 blue pens. Cory randomly picks a pen from the box and keeps it. Then Todd randomly picks a pen from the box. What is the probability both boys will pick red pens?

A $\frac{1}{3}$

B $\frac{9}{25}$

C $\frac{1}{30}$

D $\frac{1}{36}$

16 Helen is preparing candy bags for the children at a party. She has 2 flavors of lollipops, 4 types of candy bars, and 6 flavors of chewy candies. If each bag contains 1 piece of each kind of candy, what is the total number of possible candy combinations for the bags?

A 12

B 15

C 36

D 48

19 Randy spins the arrow on a spinner with 5 equal sections labeled A, B, C, D, and E. Then, he rolls a 6-sided number cube with sides numbered 1 through 6. What is the probability that the arrow will stop on the letter A and the number cube will show the number 4?

A $\frac{1}{30}$

B $\frac{1}{11}$

C $\frac{1}{6}$

D $\frac{1}{5}$

2006	2007	2008	2009	2010
5) C	10) D	16) C	12) C	3) B
12) J	13) D	24) C	27) C	5) A
25) D	17) D	28) A		16) D
30) G	21) C			19) A
	22) B			
	24) C			