Mr. Powder Ditto 16 – Review of Statistics

- 1. Which of the following samples would be most representative of the entire student population?
 - A. surveying every boy in a gym class
 - B. surveying every girl in an art class
 - C. surveying every teacher
 - **D.** surveying every 3rd student who enters the school

Explain why you chose your answer.

Math 7R Name:

- **4.** Neela has 11.5 yards of fabric. She will use 20% of the fabric to make a flag. How many yards of fabric will she use?
 - **5.** A patio blueprint has a key that shows 1 inch is equal to 12 feet. If the owner wants the length to be 30 feet, how many inches will the length be on the blueprint?

2. Each spinner is spun once.



What is the probability of spinning the number 3 and the letter A?

3. Which of the following equations is equivalent to the equation shown below?

3x + 5 = 7x - 10	

- **A.** 10x + 5 = -10**B.** 4x + 5 = -10**C.** 7x - 5 = 3x
- **D.** -4x + 5 = -10

6. The number of ringtones that twelve middle school students have on their cell phones is 14, 8, 7, 6, 5, 5, 10, 11, 8, 8, 6, and 7. Which of the following statements is NOT supported by these data?

- **F.** Half of the ringtones are below 7.5 and half are above 7.5.
- **G.** The range of the data is 9 ringtones.
- **H.** An outlier of the data is 11 ringtones.
- **I.** About one fourth of the ringtones that the students have are at or above 9.
- 7. Which box plot represents the data set 8, 12, 21, 15, 20, 9, 16, 14, and 25?



8. Katherine polled 21 classmates to find out the average number of hours each spends watching television each week. Which of the following displays would be most appropriate to show the individual student responses?



H. Number of Hours Spent Watching Television Each Week







9. The numbers of monthly minutes Gary used on his cell phone for the last eight months are shown below.

Monthly Cell Minutes						
400	550	450	620			
550	600	475	425			

Find the mean, median, and mode of this data.

- **10.** Mr. Thompson made 20 liters of punch for a party. The punch contained 5 liters of orange juice. Write and solve a proportion to find the percent of orange juice in the punch.
- **11.** The table shows how values of a painting increased over ten years.

Year	Value	Year	Value
2005	\$350	2010	\$1,851
2006	\$650	2011	\$2,151
2007	\$950	2012	\$2,451
2008	\$1,200	2013	\$2,752
2009	\$1,551	2014	\$3,052

Part A Select and create a display (n a separate sheet of paper) that shows the relationship between years and the value of the painting. Justify your reasoning.

Part B Write a conclusion based on your graph.

Part C Use the graph to predict what the value of the painting will be in 2018.