

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Probability and Statistics FINAL EXAM REVIEW

**Find the mean, median, and mode for each set of data.**

1. {1, 4, 8, 3, 4, 5, 2, 2, 2, 5}

2. {95, 67, 22, 36, 67}

3. {23, 30, 23, 68, 91, 81, 12, 75}

4. {299, 302, 500, 115, 89, 432}

5. {76, 113, 159, 202, 254, 325, 436, 479}

**Find the range, upper quartile, lower quartile, median, and interquartile range for each set of data.**

6. {25, 46, 39, 27, 50, 56, 92, 48, 56, 10}

7. {43, 26, 92, 11, 8, 49, 52, 126, 86, 42, 63, 78, 91, 79, 86}

8. {10, 11, 15, 19, 22, 24, 26, 37, 38, 45, 45, 47, 48}

**Solve each problem using the counting principle.  
(15.2)**

9. The letters A, B, C, and D are used to form four-letter passwords for entering a computer file. How many passwords are possible if letters can be repeated any number of times?

10. A restaurant serves 5 main dishes, 3 salads, and 4 desserts. How many different meals could be ordered if each has a main dish, a salad, and a dessert?

11. How many 5-digit even numbers can be formed using the digits 4, 6, 7, 2, 8 if digits can be repeated any number of times?

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12. How many ways can the first five letters of the alphabet be arranged if each is only used once?

19.  $3q + 7 \geq 13$

13. How many ways can 3 books be placed on a shelf if chosen from a selection of 7 different books?

20.  $5(3x - 5) + x < 2(4x - 1) + 1$

21.  $-12 < 7s - 5 \leq 9$

**Solve each equation or inequality.**

14.  $2x - 7 - (x - 5) = 0$

**Write the slope-intercept form of an equation for each graph described.**

15.  $5t - 3 = -2t + 10$

22. slope:  $\frac{1}{3}$       y-intercept: -7

16.  $15x + 25 = 2(x - 4)$

23. slope: 4      passes through (-3, 3)

17.  $2(3x - 1) = 3(x + 2)$

24. passes through (0, 7) and (5, 2)

18.  $4 > b + 1$

25. passes through (7, 7) and parallel to  $2x + 3y = 6$