Exam Instructions
(Your proctor will read these on the day of the exam)

1. All students get an answer sheet and a test paper.

2. Have them write their name and the date on BOTH papers.

3. Only answers written on their answer sheet will get credit, but they CAN write on their test paper as well.

4. Calculators can be used, but they cannot be shared.

5. Students have 1 hour to complete the test. Please do not allow extra time.

6. Please announce; "Questions 1 – 27 will be used to determine which level of Algebra I will be best for you (Standard, Advanced, or Honors). If you have not had Algebra I yet, concentrate on Questions 1 – 27. Questions 28 – 45 will be used to determine if you can test out of Algebra I and go directly to Geometry as a freshman. If you wish to test out of Algebra I, it is important that you answer as many of the 45 questions correctly as possible."

7. Collect BOTH the answer sheet and the test paper at the end of the 1 hour testing period.

Name: _____ Student ID#: _____ Date: _____

CLEARLY write your answer to each question below. You will only get credit for answers on this sheet, not for anything written in your test book.

1.	19.	37.
2.	20.	38.
3.	21.	39.
4.	22.	40.
5.	23.	41.
6.	24.	42.
7.	25.	43.
8.	26.	44.
9.	27.	45.

10.	28.
11.	29.
12.	30.
13.	31.
14.	32.
15.	33.
16. Mean = Median =	34.
17.	35.
18.	36.

INSTRUCTIONS!
Questions 1 – 27 will be used to place you in the proper level of Algebra I class. If you have not had Algebra I yet, concentrate on these questions.
Questions 28 – 45 will be used to determine whether or not you will "test out" of Algebra I and go to Geometry as a freshman. Do these after you complete #1-27.

OFFICIAL USE ONLY (Do not write here)

SECTION	1	2	3	4	5	PA	A1	TOTAL
# CORRECT								
PLACEMENT								

Name: _____ Student ID#: _____ Date: _____

You may write any work on this test, but you will only receive points for answers written on the answer sheet.

Section 1: Pre-Algebra (Operations, Fractions, Distribution)

1. Evaluate $20 \div 2(6 + -1) - (6 - 8)$

2. Simplify $\dfrac{2/9}{8/3}$. Express your answer as a simplified fraction.

3. If these numbers are put in order from largest to smallest, which number would be second on the list?

2.1 $\sqrt{3}$ $\dfrac{11}{10}$ 1.2^2 -1.25

4. What is the least common denominator of $\dfrac{1}{6}$ and $\dfrac{5}{8}$?

5. Simplify $\dfrac{1}{3} + \dfrac{2}{7}$. Express your answer as a simplified fraction.

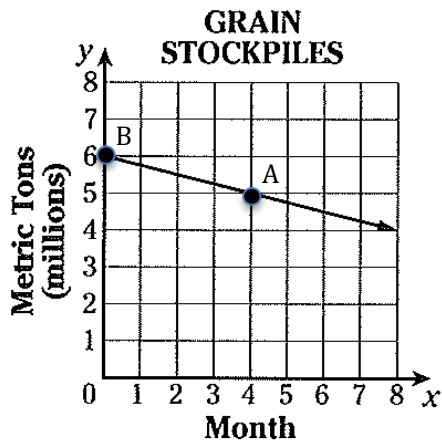6. What is the least common multiple of 9 and 21?

7. What is the greatest common factor of 9 and 21?

8. Write .000785 in scientific notation.

9. Simplify $\dfrac{(1-7)^2}{5-2}$.

Section 2: Pre-Algebra (Plotting, reading graphs, interpreting graphs, data basics)

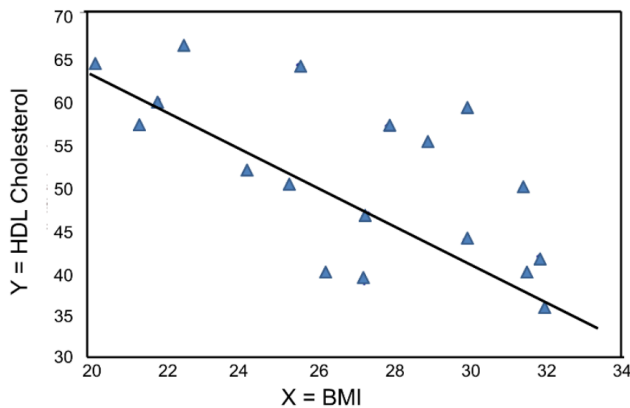Use this graph for questions 10 and 11.

GRAIN STOCKPILES

10. What are the coordinates of the point labeled "B" on the graph above?

11. What is the slope of the line that runs through A and the origin?
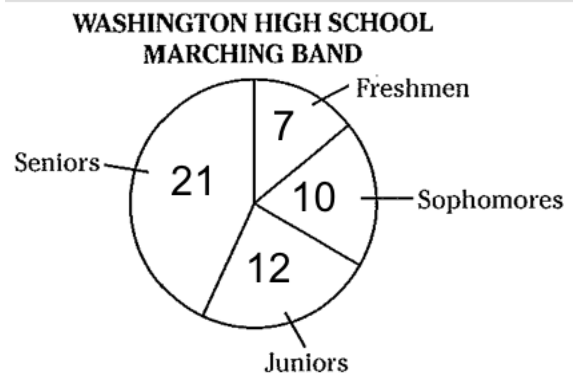
Use this graph for questions 12 and 13.

Body-Mass Index (BMI) vs. HDL Cholesterol

12. According to best fit line, approximately how much cholesterol would someone with a BMI of 20 have?

13. What kind of correlation is demonstrated on the graph? Your options are weak positive, weak negative, strong positive, strong negative, no correlation.

Use this pie chart to answer Questions 14 and 15.

WASHINGTON HIGH SCHOOL MARCHING BAND

14. How many students are in the marching band?

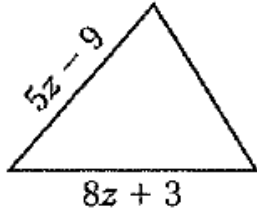15. What percentage of the students in the marching band are juniors?

16. Find the mean and median of this set of data: 5, 6, 8, 16, 9, 5, 7

17. What is 18% of 500?

18. 112 is what percent of 275?

Section 3: Pre-Algebra (Word Problems and Solving Equations)

19. The measure of the missing side is 3z + 5, what is the perimeter (in terms of z)?

20. A new smartphone regularly sells for $307. However, it is on sale for 25% off. What is the final cost?

21. You need to get 5 new shirts and 4 new pairs of pants to start school. Shirts cost $18 each and pants cost $21 each. How much money do you need for back to school shopping?

22. Sam is traveling 50 miles per hour. How many hours will it take her to travel 160 miles?

23. Destiny had $20 to buy 9 notebooks. She had $7.85 left over. How much did each notebook cost?

24. One inch on a map of the city equals 50 feet in the city. How many inches are required to represent 650 feet?
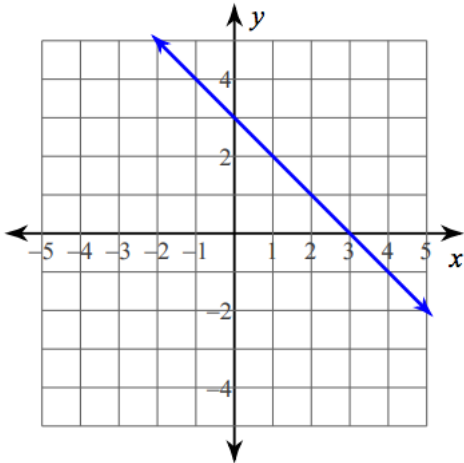
25. Solve the equation: $4x - 7 = 17$
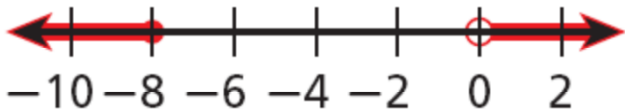
26. Solve the equation: $8x - 3(x+1) = 12$

27. Solve the equation: $10 - 7x = 5(x+2)$

Section 4: Algebra I (Lines, Line of best fit, Functions, Systems, and Inequalities)

28. What is the equation of the line shown below? Use slope-intercept form.

29. What is the compound inequality shown on the number line below?

$$-10 \quad -8 \quad -6 \quad -4 \quad -2 \quad 0 \quad 2$$
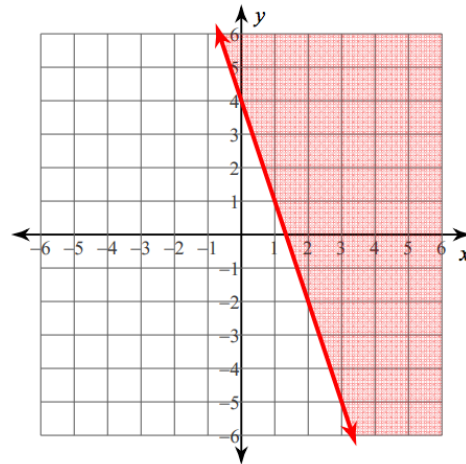
30. If f(x) = 5x -7, what is f(-3)?

31. Find the solution for the following inequality: 4x < 9x + 30

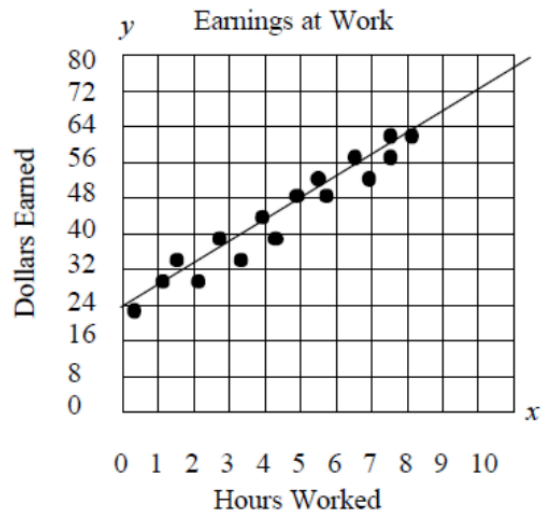32. Write the slope intercept form of the standard form equation 2x + 5y = 40

33. What is the solution to this system of equations: 2x + y = 9 and 3x - 3y = -9

34. What is the equation of the line passing through (-1, 2) and (2, -4)?

35. What is the inequality expressed on the graph below?

Use the graph below for Questions 36.

Earnings at Work

36. What is the line of best fit shown on this graph?
   a.   Y = 24X + 5
   b.   Y = 5X + 24
   c.   Y = (5/8)X + 24
   d.   Y = 24X + (5/8)

Section 5: Algebra I (Exponents, Roots, Factoring)

37. Express $\sqrt{75}$ in simplest form. NOTE!
     The answer is not a decimal.

41. Simplify $\dfrac{x^5 y^3}{x^2 y}$

42. What is the greatest common factor of $15a^3b^2$ and $24a^2b$?

38. Factor the expression $x^2 + 7x + 12$

43. What is the least common multiple of $6ab^3$ and $9a^2b$?

39. Multiply $(x + 5)(2x - 7)$

44. Simplify the expression $ab(3a - 8b + ab)$

40. Solve by factoring. $3x^2 + 5x + 2 = 0$

45. Simplify $\dfrac{3x^2}{12x + 21x^2}$