

Name: _____ Date: _____

Incoming Algebra I CP Packet

Directions: Solve all problems. You must show all work in order to receive credit.

Part 1: Fractions

A) Reduce to simplest form.

1. $\frac{3}{9}$

2. $\frac{4}{10}$

3. $\frac{24}{32}$

4. $\frac{18}{6}$

B) Change to improper fractions.

5. $2\frac{3}{8}$

6. $3\frac{6}{7}$

7. $7\frac{3}{4}$

C) Add the fractions.

8. $\frac{8}{9} + \frac{5}{6}$

9. $\frac{4}{3} + \frac{2}{7}$

10. $\frac{1}{7} + \frac{3}{14}$

D) Subtract the fractions.

11. $\frac{9}{7} - \frac{3}{4}$

12. $\frac{15}{3} - \frac{1}{8}$

13. $\frac{25}{2} - \frac{8}{3}$

E) Multiply the fractions. Be sure to state your answer in simplest form.

14. $\frac{3}{8} \times \frac{5}{6}$

15. $\frac{2}{3} \times \frac{9}{7}$

16. $\frac{5}{6} \times \frac{22}{3}$

17. $\frac{3}{5} \times \frac{1}{8}$

F). Divide the fractions. Be sure to state your answer in simplest form.

$$18. \frac{6}{7} \div \frac{2}{3}$$

$$19. \frac{5}{8} \div \frac{1}{4}$$

$$20. \frac{2}{9} \div \frac{1}{7}$$

$$21. \frac{5}{3} \times \frac{2}{5}$$

Part 2: Integers

$$22. -4 + (-5)$$

$$23. -3 + (-8) + 12$$

$$24. 7 - 14$$

$$25. \left(-\frac{1}{2}\right)\left(-\frac{1}{4}\right)(5)$$

$$26. 13 - 7 - 15$$

$$27. -(-26)$$

$$28. (8)(-6)(-1)$$

$$29. \frac{165}{-5}$$

$$30. -\frac{150}{-6}$$

Part 3: Equations

$$31. x + 2 = 5$$

$$32. x - 2 = 3$$

$$33. 3x = 15$$

$$34. \frac{1}{2}x = 8$$

$$35. 3x + 7 = 28$$

$$36. 4x - 8 = 40$$

Part 4: Simplifying Expressions

37. $4(x + 3)$

38. $-2(3x - 5)$

39. $2(3b + 1) - 5$

40. $2(x + 3) - 5(2x + 1)$

41. $8y - 7 + 7y - 15$

42. $30x - 50 - 12x + 14$

Part 5: Critical Thinking

43. A \$150 golf bag is going on sale for a 25% discount. How much will the golf bag cost on sale?

44. Tyler bought 3 T-shirts at a cost of \$14.99 each. What he will be paying including 7% sales tax?

45. The sale price of an LCD TV is \$280, representing 30% off the regular price. What is the original price?

46. What is the final cost of a \$21,000 car with a sales tax of 7%?

47. Ava bought salads at \$2.75 each and bottles of water at \$0.80 each. The total cost was \$16.15. How many salads and how many bottles of water did Ava buy?

48. If five specialty slices of pizza cost \$18.75, how much would seven specialty slices of pizza cost?

49. Gavin wants to arrive at school no later than 7:25 A.M. for his first class. It takes him 25 minutes to shower and get dressed, 15 minutes to eat breakfast, and at least 20 minutes to get to school. What is the latest that Gavin should plan to get out of bed?

50. Mark has \$135 in the bank and plans to \$5 per week. Olivia has \$90 in the bank and plans to save \$10 per week. How many weeks will it be before Olivia has at least as much in the bank as Mark?