

**Algebra I CP  
Summer Packet**

**Please show all work in the space provided. Do not leave any questions blank. If you cannot complete the entire question please do as much work as you can.**

1. Change  $\frac{1}{5}$  to a percent.

- a) 25%                      b) 20%                      c) 5%                      d) .2%                      1. \_\_\_\_\_

2. Change 47% to a decimal.

- a) 47.0                      b) 4.7                      c) 0.47                      d) 0.047                      2. \_\_\_\_\_

3. Change 2.15 to a fraction.

- a)  $2\frac{1}{5}$                       b)  $2\frac{2}{3}$                       c)  $2\frac{3}{200}$                       d)  $2\frac{3}{20}$                       3. \_\_\_\_\_

4. Change  $\frac{3}{8}$  to a decimal.

- a)  $2.\overline{66}$                       b) 3.75                      c) 0.375                      d) 0.0375                      4. \_\_\_\_\_

5. Change 126% to a decimal.

- a) 0.126                      b) 1.26                      c) 12.6                      d) 126.00                      5. \_\_\_\_\_

6. Simplify:  $\frac{2}{3} + \frac{1}{8}$

- a)  $\frac{2}{5}$                       b)  $\frac{3}{11}$                       c)  $-\frac{1}{5}$                       d)  $\frac{19}{24}$                       6. \_\_\_\_\_

7. Simplify:  $5\frac{3}{7} - 2\frac{1}{3}$

- a)  $3\frac{1}{2}$                       b)  $7\frac{2}{5}$                       c)  $3\frac{2}{21}$                       d)  $7\frac{16}{21}$                       7. \_\_\_\_\_

8. Simplify:  $\frac{6}{11} \div \frac{1}{2}$

a)  $1\frac{1}{11}$

b)  $\frac{11}{2}$

c)  $\frac{3}{11}$

d)  $5\frac{1}{2}$

8. \_\_\_\_\_

9. Simplify:  $\left(5\frac{2}{5}\right)\left(3\frac{1}{2}\right)$

a)  $15\frac{1}{5}$

b)  $1\frac{19}{35}$

c)  $18\frac{9}{10}$

d)  $7\frac{1}{2}$

9. \_\_\_\_\_

10. Simplify:  $|-40| - |10 - 14|$

a) 44

b) 36

c) -36

d) -64

10. \_\_\_\_\_

11. Simplify:  $52 + (-13) - (-8)$

a) 31

b) 73

c) 47

d) -31

11. \_\_\_\_\_

12. Simplify:  $4 - 2(10 - 5) + 3^2$

a) 19

b) 3

c) 16

d) 9

12. \_\_\_\_\_

13. Simplify:  $5 \times 6 \div 2 \times 3$

a) 5

b) 6

c) 45

d)  $\frac{1}{5}$

13. \_\_\_\_\_

14. What is 30% of 52?

a)  $173\frac{1}{3}$

b)  $57\frac{2}{3}$

c) 0.576

d)  $15\frac{3}{5}$

14. \_\_\_\_\_

15. What percent of 12 is 18?

a) 150%

b) 67%

c) 2.16%

d) 1.5%

15. \_\_\_\_\_



24. Solve for  $n$ :  $8n = 24$

- a) 16                      b) 3                              c) 32                              d) 192                              24. \_\_\_\_\_

25. Solve.  $2n - 5 = 7$

- a)  $n = 1$                       b)  $n = 6$                               c)  $n = 8\frac{1}{2}$                               d)  $n = -2\frac{1}{2}$                               25. \_\_\_\_\_

26. Solve.  $\frac{2}{5}x - 7 = 41$

- a)  $x = 120$                       b)  $x = 240$                               c)  $x = 106$                               d)  $x = 99$                               26. \_\_\_\_\_

27. Solve.  $\frac{n}{3} + 5 \leq -4$

- a)  $n \leq -3$                       b)  $n \leq -27$                               c)  $n \leq 3$                               d)  $n \leq -17$                               27. \_\_\_\_\_

28. Solve.  $-4d - 7 > 9$ .

- a)  $d > -4$                       b)  $d > -\frac{1}{2}$                               c)  $d < -4$                               d)  $d < 4$                               28. \_\_\_\_\_

29. Simplify by combining like terms:  $3m^2 + 4n^4 - m^2 - 4n^4$

- a)  $2m^4$                       b)  $4m^4$                               c)  $2m^2$                               d)  $2m^2 + 8m^4$                               29. \_\_\_\_\_

30. Simplify by combining like terms:  $-4mn + 3m + 6mn + 2mn$

- a)  $5m^2n + 2m^2n^2$                               b)  $4mn + 3m$   
b) c)  $-4mn + 3m + 8mn$                               d)  $7mn$                               30. \_\_\_\_\_

31. Evaluate  $-3m^2 + n$  when  $m = 2, n = -4$ .

- a) -16                      b) 40                              c) 32                              d) -40                              31. \_\_\_\_\_

32. Paul weighs 170 pounds. Lisa weighs  $x$  pounds. If together they weigh 283 pounds, which equation could be used to represent this situation?

- a)  $283 + x = 170$                               b)  $x = 283 + 170$   
c)  $283 - x = 170$                               d)  $170 - x = 283$                               32. \_\_\_\_\_

33. Write the algebraic expression for “the product of a number and four”.

- a)  $\frac{n}{4}$                       b)  $4n$                       c)  $n + 4$                       d)  $n - 4$                       33. \_\_\_\_\_

34. Write the algebraic expression for “two times the sum of a number and five”.

- a)  $2(n + 5)$                       b)  $2n + 5$                       c)  $2 \times n + 5$                       d)  $2 \times 5n$                       34. \_\_\_\_\_

35. A single batch of cookies calls for  $2\frac{1}{2}$  cups of flour. If you want to triple the recipe, how much flour should you use?

- a)  $6\frac{1}{2}$                       b)  $7\frac{1}{2}$                       c) 5                      d) 8                      35. \_\_\_\_\_

36. To plot the point  $(-3, 5)$ , start at the origin and move \_\_\_\_\_.

- a) right 3, down 5                      b) left 3, up 5  
c) down 3, right 5                      d) left 3, down 5                      36. \_\_\_\_\_

37. A bean stalk grew 4 feet in 6 days. At that rate, how much would it grow in 36 days?

- a) 54 ft                      b) 35 ft                      c) 24 ft                      d) 216 ft                      37. \_\_\_\_\_

38. The product of 34 negative numbers and 63 positive numbers is....

- a) positive                      b) negative                      c) 0                      d) 1                      38. \_\_\_\_\_

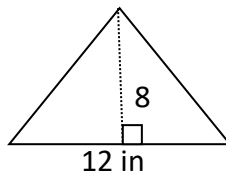
39. Given the word **DINOSAURS** find the probability of choosing a vowel.

- a) 4                      b)  $\frac{4}{9}$                       c)  $\frac{4}{5}$                       d)  $\frac{5}{9}$                       39. \_\_\_\_\_

40. What is the area of a rectangle whose dimensions are 15 feet by 7 feet?

- a) 22 sq ft                      b) 85 sq ft                      c) 105 sq ft                      d) 44 sq ft                      40. \_\_\_\_\_

41. What is the area of the triangle?



- a) 96 sq in      b) 20 sq in      c) 10 sq in      d) 48 sq in      41. \_\_\_\_\_

42. What is the area of a circle whose diameter is 6 cm?

- a) 28.26 sq cm    b) 18.84 sq cm    c) 9.42 sq cm    d) 113.04 sq cm    42. \_\_\_\_\_

43. Karen drove 150 miles in 3 hours. What was her average speed?

- a) 5 mph      b) 55 mph      c) 50 mph      e) 15 mph      43. \_\_\_\_\_

44. How many  $\frac{1}{4}$  pound hamburgers can be made from  $2\frac{3}{4}$  pounds of meat?

- a) 8      b) 11      c) 15      e) 6      44. \_\_\_\_\_

45. What is the prime factorization of 60?

- a)  $2^2 \cdot 3 \cdot 5$     b)  $4 \cdot 15$     c)  $2^2 \cdot 15$     e)  $3 \cdot 4 \cdot 5$     45. \_\_\_\_\_

46. Write the number 45,600,000 in scientific notation.

- a)  $456 \times 10^5$     b)  $4.56 \times 10^{-7}$     c)  $456 \times 10^{-5}$     d)  $4.56 \times 10^7$     46. \_\_\_\_\_

47. Write the number  $8.03 \times 10^{-4}$  in decimal notation.

- a) 0.000803    b) 80,300    c) 0.0803    d) 8,030    47. \_\_\_\_\_

48. The perimeter of a square is 140 meters. What is the length of each side?

- a) 70 meters    b) 65 meters    c) 50 meters    d) 35 meters    48. \_\_\_\_\_

49. What is the value of  $3x^5$  if  $x = -2$ ?

- a) 32      b) 96      c) -96      d) -30      49. \_\_\_\_\_

50. Which number should come next in this pattern? 0.5, 2, 3.5, 5, ...

- a) 8      b) 7.5      c) 7      d) 6.5      50. \_\_\_\_\_