



Algebra I

Summer Math Packet

Course 1311

Congratulations and welcome to St. Brendan High School!

This summer math packet is a review of some of the concepts learned in middle school that will be needed for Algebra I. It will assure that all students begin the school year on the same page and with equal opportunity to succeed in Algebra I.

Instructions for completing the packet:

- Please print the packet or use loose leaf paper to complete the packet by hand showing all work. Work must be neat and legible.
- Please use the websites provided to help you if you need reminders on how to complete some practice problems.
- Take notes as you complete your work. You will be given a quiz on this material on the first week of school.
- Work on the packet with your friends. Help each other. Every student is responsible for knowing the material in this packet when you return in August. We will review as a team and everyone will be expected to participate.
- Bring your packet to our first class together. It will be collected for a grade. Only packets done with paper and pencil will be accepted.

Helpful Websites:

<http://www.mathtv.com/>

<http://www.purplemath.com/modules/index.htm>

<https://www.khanacademy.org>

Helpful for graphing functions:

<https://www.education.ti.com/en/resources/family-of-functions>

Assignment

Date _____ Period _____

Find each sum.

1) $-7 + 8$

2) $-2 + 7$

3) $5 + -4$

4) $8 + -2$

5) $3 + -2$

6) $1 + 7 + -8$

7) $-6 + 6 + -3$

8) $-5 + -5 + -6$

9) $1 + -3 + -7$

10) $-4 + 3 + -5$

Find each difference.

11) $1 - -2 - 1$

12) $-6 - -5 - -8$

$13) -3 - 8 - -6$

$14) 6 - -2 - 6$

$15) -2 - 1 - 4$

Find each product.

$16) (-8)(4)$

$17) (9)(-6)$

$18) (7)(-2)$

$19) (-6)(7)$

$20) (6)(-10)$

$21) (-2)(-2)(-9)$

$22) (10)(4)(-9)$

$23) (-5)(-1)(6)$

$24) (-8)(-10)(2)$

$25) (8)(-8)(4)$

Find each quotient.

$$26) \frac{-16}{-8}$$

$$27) \frac{24}{8}$$

$$28) \frac{80}{8}$$

$$29) \frac{-18}{-2}$$

$$30) \frac{49}{-7}$$

$$31) \frac{20}{-2}$$

$$32) \frac{64}{-8}$$

$$33) \frac{70}{7}$$

$$34) \frac{27}{9}$$

$$35) \frac{90}{9}$$

Evaluate each expression.

$$36) 6(6 + 2)$$

$$37) 12 \div 4 \times 3$$

$$38) 3 \times 10 \div 2$$

$$39) 6 \times 2 - 4$$

$$40) 4(4 - 2)$$

$$41) 1^3 \times 2$$

$$42) 6 \times 6 - 4$$

$$43) (4 \times 2) \div 2$$

$$44) (6 + 4) \times 5$$

$$45) (14 - 4) \div 5$$

$$46) 2\frac{1}{5} - \frac{3}{2}$$

$$47) 2 - 1\frac{2}{3}$$

$$48) \frac{11}{6} - \frac{5}{4}$$

$$49) \frac{7}{6} - \frac{1}{2}$$

$$50) 1\frac{3}{5} + \frac{4}{5}$$

$$51) \frac{3}{2} + \frac{3}{2}$$

$$52) \frac{5}{4} + \frac{5}{4}$$

$$53) 4\frac{1}{6} - \frac{1}{3}$$

$$54) 3\frac{1}{4} - \frac{8}{7}$$

$$55) 1\frac{2}{5} + 1\frac{6}{7}$$

Find each product.

$$56) -7 \times \frac{1}{2}$$

$$57) 2\frac{1}{2} \times -\frac{3}{4}$$

$$58) -\frac{2}{3} \times -\frac{4}{7}$$

$$59) 5\frac{1}{6} \times -\frac{8}{5}$$

$$60) 3\frac{3}{4} \times -\frac{4}{3}$$

$$61) -\frac{7}{6} \times \frac{5}{3}$$

$$62) 1\frac{1}{10} \times -\frac{3}{2}$$

$$63) -\frac{6}{5} \times -\frac{15}{8}$$

$$64) -1\frac{7}{8} \times \frac{1}{2}$$

$$65) 5\frac{2}{3} \times -\frac{3}{2}$$

Find each quotient.

$$66) 2\frac{5}{8} \div \frac{-3}{2}$$

$$67) 2 \div 4\frac{1}{2}$$

$$68) -1\frac{1}{2} \div -2\frac{1}{10}$$

$$69) 3\frac{1}{3} \div \frac{4}{3}$$

$$70) -2\frac{5}{6} \div 10\frac{7}{8}$$

$$71) 5\frac{2}{3} \div \frac{3}{10}$$

$$72) 9 \div \frac{5}{6}$$

$$73) \frac{-1}{3} \div \frac{1}{5}$$

$$74) \frac{2}{9} \div -2\frac{3}{4}$$

$$75) 3\frac{1}{9} \div -2\frac{7}{10}$$

Factor the common factor out of each expression.

76) $25r^5 + 10$

77) $28b + 12$

78) $28n^3 + 7$

79) $-81x^2 - 72$

80) $3 + 12n^2$

81) $9n^2 + 12n$

82) $2b^3 + 2b^2$

83) $42 - 18x$

84) $-18a^2 + 24$

85) $3n^4 + 3$

Simplify each expression.

86) $8n + 3n^4 + 4n^4 - n$

87) $6p - p^2 - 7p^2 - 3p$

88) $n^4 + 4 - 7n^4 + 7$

89) $6k^4 - 3k^2 - 4k + 4k^4$

$$90) 2v^3 - 6v^2 - 7 - 3v^2$$

Find each product.

$$91) 5k(6k + 8)$$

$$92) 5(v + 1)$$

$$93) 2r^4(3r + 7)$$

$$94) 4(8n - 6)$$

$$95) 7(5n - 8)$$

$$96) 4(b - 8)$$

$$97) 7(2n - 3)$$

$$98) 3(6n - 2)$$

$$99) 6x^2(7x - 5)$$

$$100) 4(7n - 7)$$