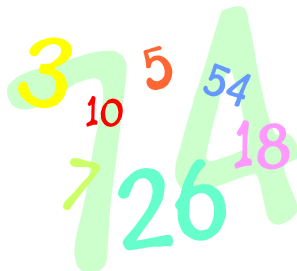


Archbishop Williams High School

Summer 2019

Summer Math Requirement



Students Entering **Algebra 1**

DIRECTIONS:

- Complete ALL problems
- Pencil ONLY
- Show ALL work. NO work = NO Grade
- Calculators are not needed
- Summer Math Packet will be graded
- Due Friday, September 6, 2019

Student Name _____

Translate the following word expressions and sentences into algebraic expressions or equations.

1) *a number increased by 5*

2) *8 subtracted from a number*

3) *a number divided by 9*

4) *3 less than five times a number*

5) *8 times a number x is 72*

6) *a number divided by 3 is 18*

In the following exercises, simplify each expression.

7) $-33 + (-67)$

8) $54 + (-28)$

9) $-3 + 6(-1 + 5)$

10) $19 - (-9)$

11) $(1 - 7) - (3 - 8)$

12) $3^2 - 7^2$

In the following exercises, simplify each expression.

$$13) -9 \cdot 4$$

$$14) 5(-9) - 3(-12)$$

$$15) (-2)^5$$

$$16) -3^4$$

$$17) -2(-18) \div 9$$

$$18) (8 - 15)(9 - 3)$$

Evaluate each expression.

19) $7x - 3$ when $x = -9$

20) $x^2 + 5x + 4$ when $x = -3$

21) $(5 \cdot 3) - 18$

22) $18 \div 9 - 15 \div 5$

23) $2 \cdot 8 - 6^2$

24) $2 \cdot (8 - 6^2)$

Evaluate each expression.

25) $\frac{x+y}{3}$, for $x = 7$ and $y = 8$

26) $2(m + n)$, for $m = 3$ and $n = 2$

27) $\frac{36}{j} - 4(k + l)$, for $j = 2$, $k = 1$, and $l = 3$

28) $(4 + d) - e(9 - f)$, for $d = 7$, $e = 4$, $f = 8$

29) $3a - 2b + b(6 - 2)$, for $a = 4$, $b = 2$

30) $r(p + 3) + q(p - 1)$, for $p = 7$, $q = 4$, $r = 3$

Round each number to the nearest tenth.

31) 12.234

32) -0.117

33) 89552

34) $\frac{2}{3}$

35) 7.66666666...

36) 102385.06

In the following exercises, simplify each fraction. Do not convert improper fractions to mixed numbers.

$$37) \frac{7}{21}$$

$$38) - \frac{108}{63}$$

$$39) \frac{182}{294}$$

$$40) \frac{11x}{11y}$$

$$41) - \frac{4x}{32y}$$

$$42) \frac{14x^2}{21y}$$

In the following exercises, perform the indicated operations and simplify.

$$43) 6m \cdot \frac{4}{11}$$

$$44) -\frac{1}{3} \cdot \frac{12}{7}$$

$$45) \frac{2}{3} \div \frac{1}{6}$$

$$46) -\frac{9}{10} - \frac{3}{4}$$

$$47) \frac{2}{5} + \left(-\frac{5}{9}\right)$$

$$48) \frac{4}{5} \div 3$$

In the following exercises, perform the indicated operations and simplify.

$$49) \frac{1}{5} + \frac{2}{3}$$

$$50) -\frac{11}{36} - \frac{11}{20}$$

$$51) \frac{\left(\frac{2}{3}\right)^2}{\left(\frac{5}{8}\right)^2}$$

$$52) \frac{4}{11} \div \frac{2}{7d}$$

$$53) \frac{2}{9} \cdot \left(-\frac{45}{32}\right)$$

$$54) 3\frac{1}{5} \cdot 1\frac{7}{8}$$

GRAPHITI

Student's Name _____

18A

Class _____

Date _____

Locate the following points on the graph below and connect them in order with straight line segments. Do not connect points separated by the word "STOP."

(X,Y) = (-5,-7), (-5,-8), (-6,-8), (-6,-7), (-5,-7) STOP (6,-5), (7,-6), (6,-7), (5,-6), (6,-5) STOP (-5,-2), (-5,-5), (-6,-4), (-6,-2), (-5,-2) STOP (6,2), (6,1), (7,0), (7,-2), (6,-3), (5,-2), (5,-1), (6,2) STOP (-4,3), (-1,-9), (0,-11), (1,-9), (4,3), (3,2), (-3,2), (-4,3), (-5,3), (-6,4), (-5,1), (-5,-1), (-6,-1), (-7,0), (-7,6), (-6,7), (-6,8), (-5,10), (-4,11), (-2,11), (-1,10), (0,10), (1,11), (3,11), (4,9), (5,9), (6,8), (6,7), (7,6), (7,4), (6,3), (3,3), (2,4), (1,4), (0,3), (-1,3), (-2,4), (-3,4), (-4,3) STOP (-6,5), (-5,6), (-4,6), (-3,5) STOP (0,5), (1,6), (3,6), (4,5) STOP (-3,6), (-2,7), (0,7), (1,8), (3,8), (5,7), (6,5), (5,4) STOP (-5,7), (-4,9), (-3,9), (-2,8), (-1,8), (1,10), (2,10), (3,9) STOP (-3,-1), (-2,-2), (2,-2), (3,-1) STOP (-2,-5), (-1,-6), (1,-6), (2,-5).

