**Math 8 Summer Packet**

Math 8 uses the Connected Math Program, a standard-based approach that encourages problem-solving, communication of ideas, application of math to everyday situations, and focus on computational skills. Strategies are designed not only to encourage all students, but to allow for differentiation to address the needs of all students. Math 8 seeks to build upon those mathematical skills introduced in seventh grade. It is a foundation for the skills and abstract thinking necessary for ninth grade algebra. **The completion of this summer packet is required**.

To be successful in Math 8, you will need:

- A lot of pencils
- A red pen (or any other color besides black/blue)
- A binder with loose-leaf paper
- Scientific Calculator TI-30

Over the summer, it is your responsibility to review and master the concepts in this packet.

- You will be required to hand in the completed packet on THE SECOND DAY OF SCHOOL (**September 4th**). No exceptions.
- Each page is worth 2 points homework grade (You must show **all** work to receive full credit)
- You will have a **QUIZ** on these topics on or about **September 10th**.
- This packet should be done **WITHOUT** a calculator.
- Use Khan Academy for assistance.

| **Topic** | **Suggested Date of Completion** |
|---|---|
| Evaluating Expressions | 7/14/19 |
| Simplify Expressions | 7/28/19 |
| Solving Equations | 8/4/19 |
| Find Slope of a Line | 8/11/19 |
| Find Linear Equation from Table | 8/18/19 |
| Solve Proportions | 8/25/19 |

*Please show all work to receive full credit. Box off final answer.*

**Evaluate each using the variables given**

1) 4 - (z - (y - z)); use y = 4, and z = -2

2) $\frac{q(p+r)}{4}$ ; use p = -5, q = 2, and r = 1

3) $p + (\frac{q}{2})^3$ ; use p = -4, and q = 2

4) z - x((-3) - y); use x = -5, y = 1, and z = 2

5) 3 + z(y - z); use y = 2, and z = -6

6) $y^2 + z - z$ ; use y = -6, and z = -5

**Simplify each Expression**

7) $6 + 8(2r - 4)$

8) $6 + 2(p + 8)$

9) $6(6n + 7) - 1$

10) $6(3 - 3p) + 4p$

11) $7 + 3(n + 3)$

12) $6(8v - 8) - 3v$

**Evaluate each Expression**

13) $((-3)-6)(1+3)$

14) $(2-5)\times(-1)-(-4)$

15) $6((-2)-(-1)-6$

16) $(3+2)^2-6$

17) $(-3)-\frac{(-10)-(-6)}{2}$

18) $\frac{(-17)-(-2)}{2-(-3)}$

19) $-\frac{12\times2}{3-(-3)}$

20) $(-1)+(-6)-(-3)^2$

**Solve each Equation**

21) $-105 = -6(4m + 6) + 3$

22) $4(-4 + 5x) = 104$

23) $2(6p + 2) = 76$

24) $5(2b + 1) + b = -61$

25) $-3(1 + 3v) - 6 = -63$

26) $-6(-3p - 2) = 120$

27) $-6(2 + 3k) = -120$

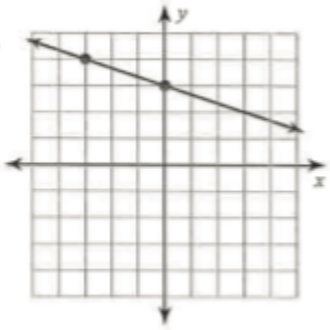
28) $4 + 2(6 + 5r) = 66$

29) $66 = 3(2 - 4m)$

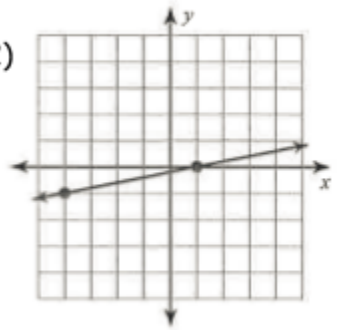
30) $2(3b - 6) + 6b = -72$

**Find the Slope of the Line**

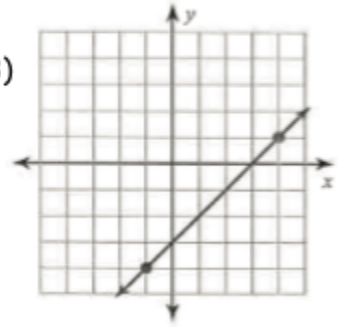
31)



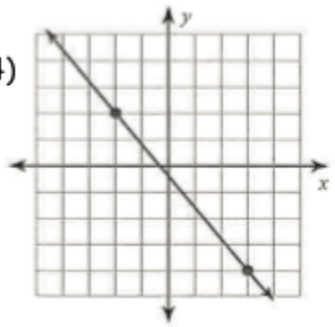

32)




33)




34)




**Write the slope-intercept form (y = mx + b) of the equation given the slope and y-intercept.**

35) slope = $\frac{5}{2}$ , y-intercept = 0

36) slope = 1, y-intercept = 1

37) slope = $-\frac{7}{2}$ , y-intercept = 3

38) slope = -1, y-intercept = -2

**Find the slope and y-intercept for each table, then write an equation**

39)

| $x$ | −3 | −2 | −1 | 0 |
|---|---|---|---|---|
| $y$ | 7 | 5 | 3 | 1 |

40)

| $x$ | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| $y$ | 0 | 2 | 4 | 6 | 8 |

41)

| $x$ | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| $y$ | 3.5 | 4.5 | 5.5 | 6.5 | 7.5 |

42)

| $x$ | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| $y$ | 1 | 3 | 5 | 7 | 9 |

43)

| $x$ | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| $y$ | 5 | 3 | 1 | −1 | −3 |

44)

| $x$ | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| $y$ | −11 | −14 | −17 | −20 | −23 |

**Solve each Proportion**

45) $\frac{x}{6} = \frac{4}{7}$

46) $\frac{4}{5} = \frac{7}{a}$

47) $\frac{7}{3} = \frac{n}{8}$

48) $\frac{a}{6} = \frac{3}{2}$

49) $\frac{a}{5} = \frac{6}{3}$

50) $\frac{7}{6} = \frac{8}{x}$