



## Geometry Summer Review

For students who have *completed* Algebra 1 and are **entering** Geometry

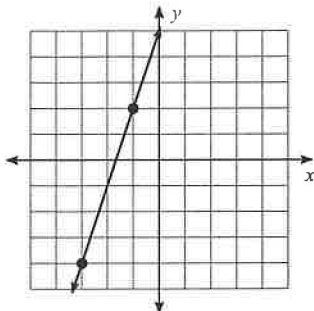
Reviewing key concepts from Algebra 1 is an excellent way to be fully prepared for the pace and rigor of Geometry. The following packet will help you practice and self-assess any concepts that you may want to spend extra time on before the start of school. **You should NOT use any type of calculator while doing these problems.**

You will take a low-stakes diagnostic quiz on this material to identify any gaps in critical concepts. You will be given additional assignments to help you learn the material until you can demonstrate mastery. If you would like additional resources to support your practice, we recommend Khan Academy as a great first step.

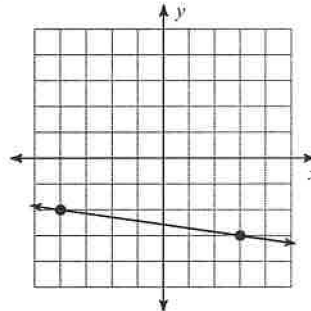
Pre-Class Check

Find the slope of each line.

1)



2)



Find the slope of the line through each pair of points.

3)  $(14, -11), (-10, 5)$

Find the slope of a line parallel to each given line.

4)  $y = -4x + 1$

Find the slope of a line perpendicular to each given line.

5)  $y = -2x - 5$

6)  $y = \frac{7}{2}x - 5$

Solve each equation.

7)  $3 = 5 + \frac{v}{2}$

8)  $-25 = 5 - 3v$

9)  $188 = -4(7n - 5)$

10)  $353 = 5v + 8(7v + 6)$

11)  $-\frac{4}{3}m + \frac{1}{2} = \frac{5}{6}$

12)  $\frac{1}{2}m + \frac{1}{3} = -\frac{11}{12}$

**Evaluate each expression.**

13)  $\frac{3}{2} + \left(-2\frac{1}{6}\right)$

14)  $1 - \frac{1}{6}$

**Factor the common factor out of each expression.**

15)  $-10n^3 + 5n$

16)  $30m^8 + 50m^7 + 60m^4$

**Factor each completely.**

17)  $b^2 + b - 20$

18)  $x^2 + 14x + 48$

19)  $3n^2 + 5n - 12$

20)  $5n^2 - 18n - 8$

**Solve each proportion.**

21)  $\frac{9}{2p} = \frac{2}{6}$

22)  $\frac{n}{8} = \frac{9}{6}$

23)  $\frac{6}{7} = \frac{10}{b+5}$

24)  $\frac{3}{8} = \frac{5}{k+2}$

**Simplify.**

25)  $\sqrt{256}$

26)  $\sqrt{200}$

27)  $-7\sqrt{96}$

28)  $-4\sqrt{32}$

## Answers to Pre-Class Check

1) 3

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

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

4) -4

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

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

7) {-4}

8) {10}

9) {-6}

10) {5}

11)  $\left\{-\frac{1}{4}\right\}$

12)  $\left\{-\frac{5}{2}\right\}$

13)  $-\frac{2}{3}$

14)  $\frac{5}{6}$

15)  $5n(-2n^2 + 1)$

16)  $10m^4(3m^4 + 5m^3 + 6)$

17)  $(b - 4)(b + 5)$

18)  $(x + 8)(x + 6)$

19)  $(3n - 4)(n + 3)$

20)  $(5n + 2)(n - 4)$

21)  $\left\{\frac{27}{2}\right\}$

22) {12}

23)  $\left\{\frac{20}{3}\right\}$

24)  $\left\{\frac{34}{3}\right\}$

25) 16

26)  $10\sqrt{2}$

27)  $-28\sqrt{6}$

28)  $-16\sqrt{2}$