

BE-1A

MONDAY 2-4-08

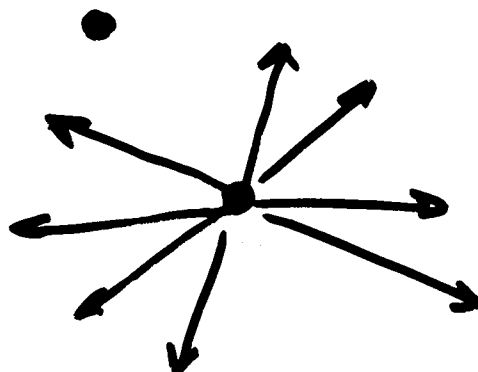
- ① DEFINE THE "STANDARD FORM" OF A LINEAR EQUATION.
 - ② HOW CAN YOU TELL IF AN EQUATION IS A LINEAR EQUATION?
 - ③ GRAPH: $y = f(x) = 2x + 5$
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- SCHEDULE MAKEUPS FOR EXAM 1

What is the simplest way to define a line? In other words, how can you show a line using the least amount of information?

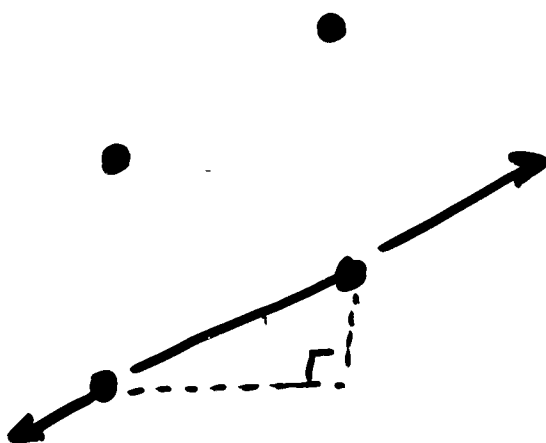
ONE POINT?

NO, ∞
lines through
ANY point

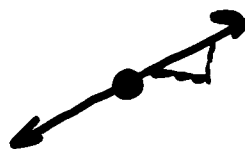


TWO POINTS?

Yes, the
line through
two points
is unique



How about a point
and a slope?

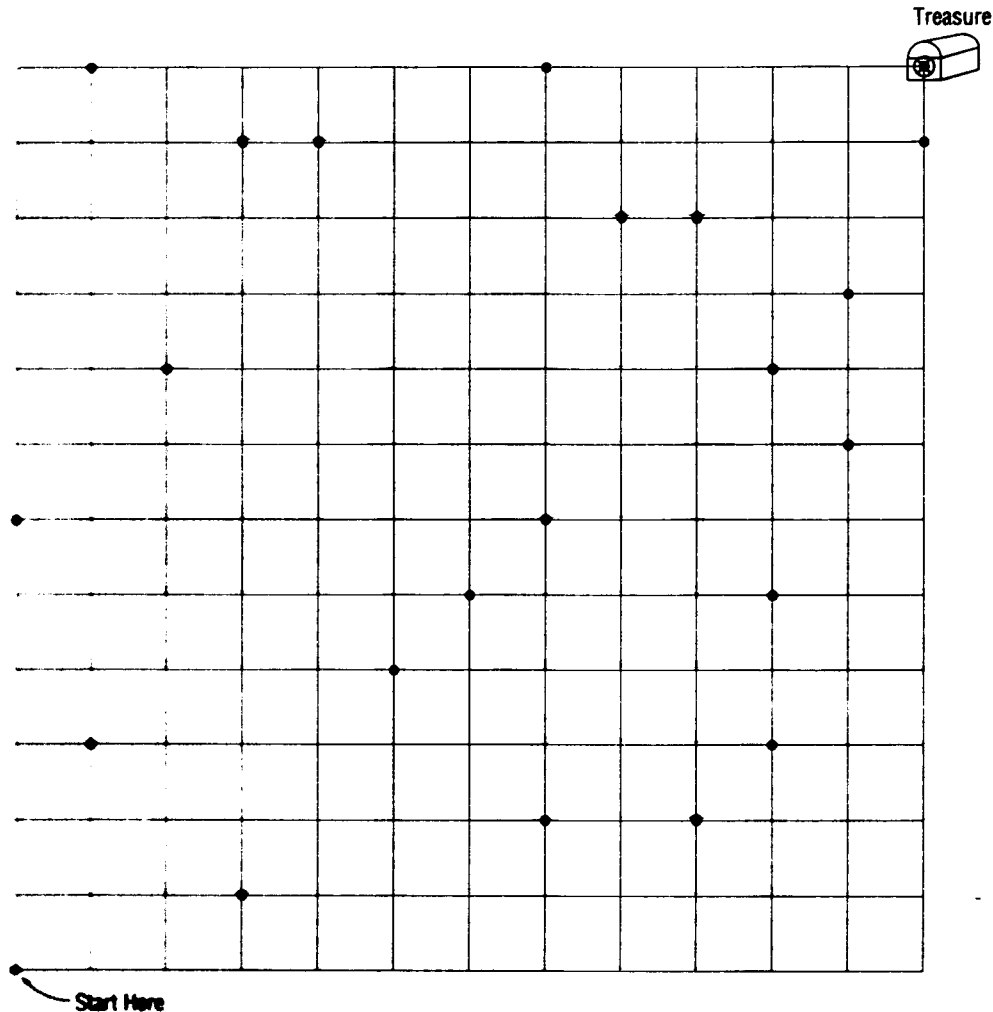


YES
THERE IS ONLY ONE LINE POSSIBLE THROUGH
A POINT IF YOU KNOW ITS SLOPE.

NAME _____ DATE _____ PERIOD _____

5-1 Enrichment**Treasure Hunt with Slopes**

Using the definition of slope, draw lines with the slopes listed below. A correct solution will trace the route to the treasure.



1. 3

2. $\frac{1}{4}$

3. $-\frac{2}{5}$

4. 0

5. 1

6. -1

7. no slope

8. $\frac{2}{7}$

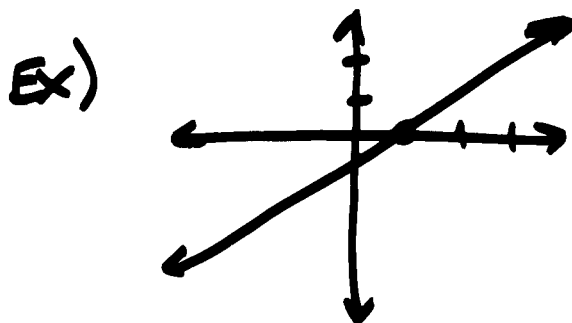
9. $\frac{3}{2}$

10. $\frac{1}{3}$

11. $-\frac{3}{4}$

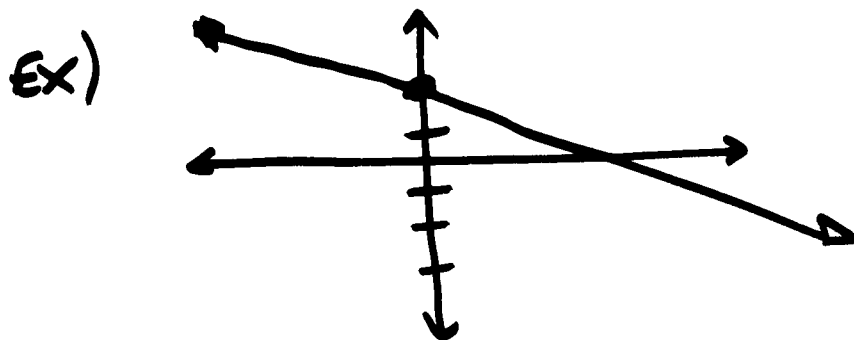
12. 3

- X-intercept where a graph crosses the X-axis. At this point, $y = 0$



X intercept is $(1, 0)$
 $\uparrow$
 $y = 0$

- Y-intercept where a graph crosses the Y axis. At this point, $x = 0$



Y intercept is $(0, 2)$
 $\uparrow$
 $x = 0$

- All diagonal lines HAVE BOTH AN X AND Y intercept.

How can you find an x or y intercept? Set $x=0$ to find the y intercept, set $y=0$ to find the x-intercept.

EX) $2x + 3y = 12$

x-intercept, set $y=0$

$$2x + 3(0) = 12$$

$$\frac{2x}{2} = \frac{12}{2}$$

$$\boxed{x = 6}$$

$(6, 0)$ is where this line crosses x axis

y-intercept, set $x=0$

$$2(0) + 3y = 12$$

$$3y = 12$$

$$\boxed{y = 4}$$

$(0, 4)$ is where this line crosses y axis

Graph? (know 2 points?)

- Review graded homework
 - Review graded Exam 1
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Homework: - Pg 168 # 13-16

- READ EX 4 on Pg 220-221
- Pg 222 # 44