Name: _____ Date: _____ Period: _____

3.4 Slope & Rate of Change CYU

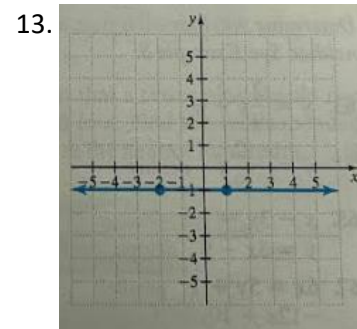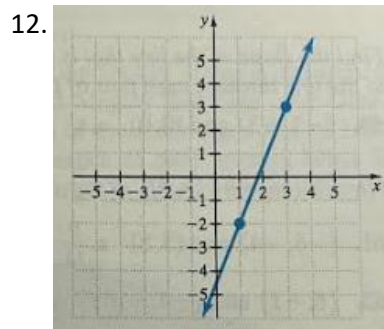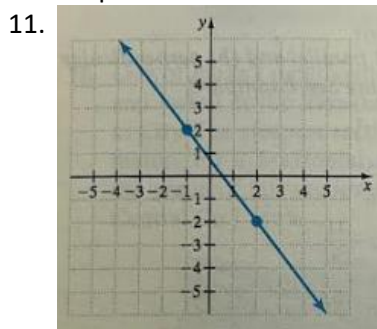| CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Vocabulary	1 - 7		
Finding slope from two points	8 - 10	25 – 27	
Finding slope from a graph	11 – 13		
Describing Slope	14 – 16	17 – 20	
Slope of parallel or perpendicular lines		17 – 20, 25 - 27	28 - 30
Finding slope from an equation	21 – 24		
Rate of change		31, 32	33, 34

Fill in the blank with vocabulary from section 3.3.
1. The measure of the steepness or tilt of a line is called _____.
2. If an equation is written in the form y = mx + b, the value of the letter ____ is the value of the slope of the graph.
3. The slope of a horizontal line is _____.
4. The slope of a vertical line is _____.
5. If the graph of a line moves upward from left to right, the line has a_____ slope.
6. If the graph of a line moves downward from left to right, the line has a_____ slope.
7. Given two points of a line, slope = $\frac{change\ in\ \_\_\_\_}{change\ in\ \_\_\_\_}$.
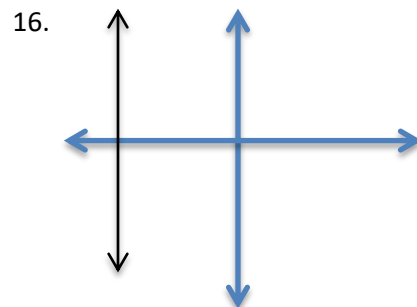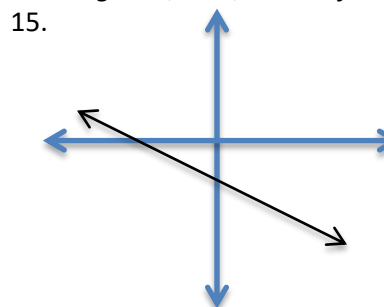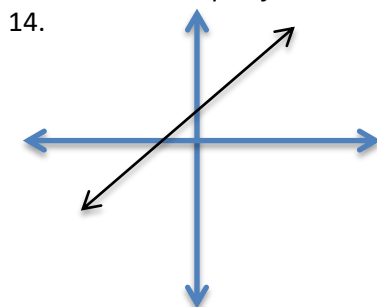
Find the slope of the line that passes through the given points. Show your work for full credit.
8. (- 1, 5) & (6, - 2)   9. (- 4, 3) & (- 4, 5)   10. (- 2, 8) & (1, 6)

Find the slope of each line.
11.

12.

13.

State whether the slope of the line is positive negative, zero, or undefined.
14.

15.

16.

Find the slope of each line.

17. x = 6   18. y = - 4   19. x = - 3   20. y = 0

Find the slope of the line. Show your work for full credit.

21. y = 5x – 2   22. 2x + y = 7   23. -3x – 4y = 6   24. 24x – 3y = 5.7

Find the slope of the line that is (a) parallel and (b) perpendicular to the line through each pair of points. Show your work for full credit.

25. (- 3, - 3) & (0, 0)   26. (6, - 2) & (1, 4)   27. (6, - 1) & (- 4, - 10)

Determine whether each pair of lines is parallel, perpendicular, or neither. Show your work for full credit.

28.
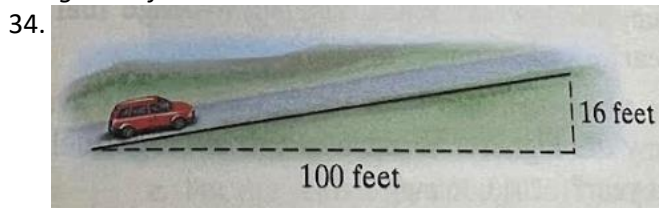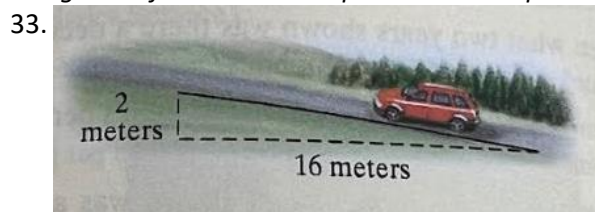$$y = \frac{2}{9}x + 3$$
$$y = -\frac{2}{9}x$$

29.
$$6x = 5y + 1$$
$$-12x + 10y = 1$$

30.
$$6 + 4x = 3y$$
$$3x + 4y = 8$$

The pitch of a roof is its slope. Find the pitch of each roof shown. Show your work for full credit.

31.

6 feet

10 feet

32.

5

10

The grade of a road is its slope written as a percent. Find the grade of each road shown.

33.

2 meters

16 meters

34.

16 feet

100 feet

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*
Rate your mastery level!
How confident are you with the skills this CYU covered? Circle the score you would give yourself.

1 2	3 4 5	6 7	8
Basic	Intermediate	Advanced	Solved ALL!