

**Additional Exercises 4.3****Form I****Slope**

(a) Find the slope of the line passing through the pair of points or state that the slope is undefined. (b) Then indicate whether the line through the points rises, falls, is horizontal or is vertical.

1.  $(9, 8)$  and  $(-2, 6)$

1a. \_\_\_\_\_

b. \_\_\_\_\_

2.  $(-11, -10)$  and  $(-6, 11)$

2a. \_\_\_\_\_

b. \_\_\_\_\_

3.  $(-6, 7)$  and  $(8, 1)$

3a. \_\_\_\_\_

b. \_\_\_\_\_

4.  $(-6, 7)$  and  $(-6, -2)$

4a. \_\_\_\_\_

b. \_\_\_\_\_

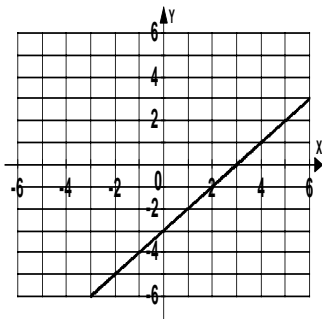
5.  $(5, -1)$  and  $(-6, -1)$

5a. \_\_\_\_\_

b. \_\_\_\_\_

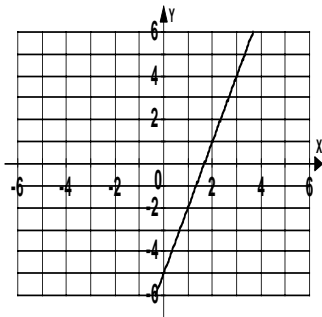
Fine the slope of the following lines .

6.



6. \_\_\_\_\_

7.

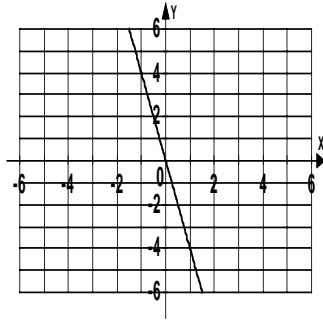


7. \_\_\_\_\_

Name \_\_\_\_\_

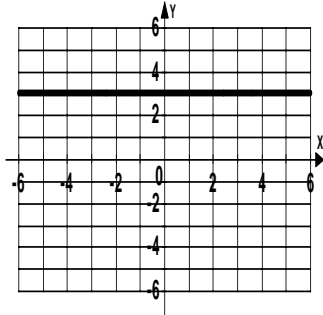
Date \_\_\_\_\_

8.



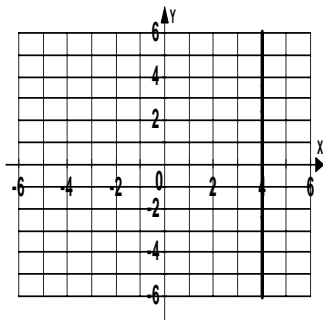
8. \_\_\_\_\_

9.



9. \_\_\_\_\_

10.



10. \_\_\_\_\_

Determine if the lines passing through the given pairs of points are parallel, perpendicular, or neither.

11. Line 1:  $(-5, 2)$  and  $(7, 4)$   
Line 2:  $(3, 4)$  and  $(9, 5)$

11. \_\_\_\_\_

12. Line 1:  $(4, 0)$  and  $(18, -14)$   
Line 2:  $(-9, -6)$  and  $(-2, 1)$

12. \_\_\_\_\_

13. Line 1:  $(-7, 8)$  and  $(-27, 26)$   
Line 2:  $(-5, -10)$  and  $(5, -1)$

13. \_\_\_\_\_

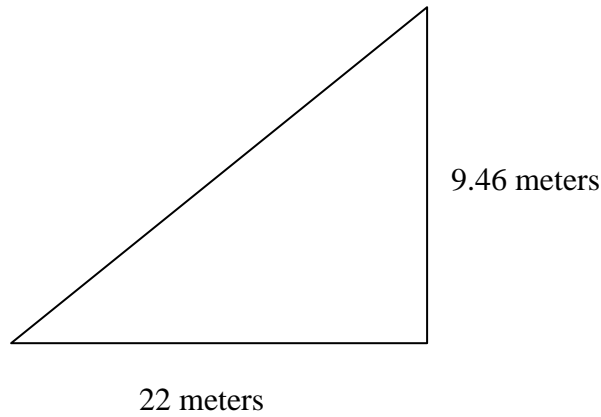
Name \_\_\_\_\_

Date \_\_\_\_\_

Solve.

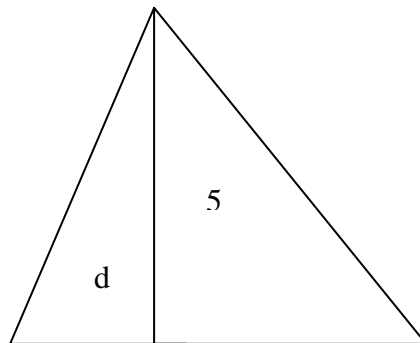
14. A section of a roller coaster track has the dimensions shown in the diagram. Find the grade of the track, which is the slope written as a percent. Round to the nearest whole percent.

14. \_\_\_\_\_



15. A tent has the dimensions shown in feet. Find  $d$  so that the pitch of the left side of the roof is  $\frac{5}{3}$ .

15. \_\_\_\_\_



**Additional Exercises 4.3**  
**Form II**  
Slope

(a) Find the slope of the line passing through the pair of points or state that the slope is undefined. (b) Then indicate whether the line through the points rises, falls, is horizontal or is vertical.

1. (6, 7) and (4, 6) 1a. \_\_\_\_\_

b. \_\_\_\_\_

2. (3, 4) and (3, -8) 2a. \_\_\_\_\_

b. \_\_\_\_\_

3. (2, 4) and (-3, 1) 3a. \_\_\_\_\_

b. \_\_\_\_\_

4. (6, 2) and (-4, 8) 4a. \_\_\_\_\_

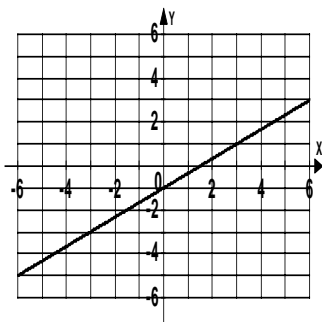
b. \_\_\_\_\_

5. (1, 5) and (-7, 5) 5a. \_\_\_\_\_

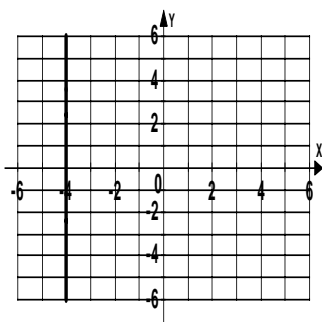
b. \_\_\_\_\_

Fine the slope of the following lines .

6. 6. \_\_\_\_\_



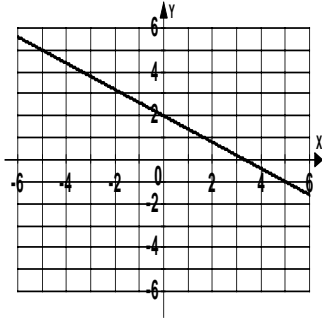
7. 7. \_\_\_\_\_



Name \_\_\_\_\_

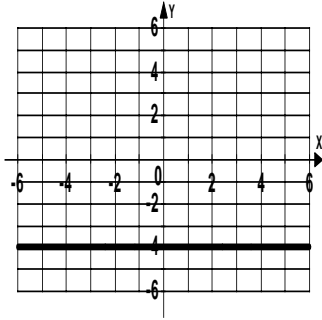
Date \_\_\_\_\_

8.



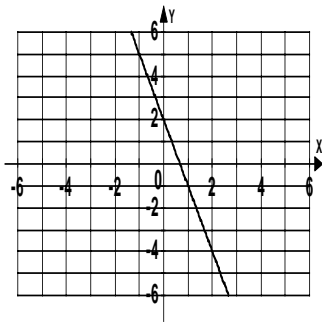
8. \_\_\_\_\_

9.



9. \_\_\_\_\_

10.



10. \_\_\_\_\_

Determine if the lines passing through the given pairs of points are parallel, perpendicular, or neither.

11. Line 1:  $(1, -8)$  and  $(2, -3)$   
Line 2:  $(4, 5)$  and  $(6, -2)$

11. \_\_\_\_\_

12. Line 1:  $(3, 2)$  and  $(-17, 2)$   
Line 2:  $(5, -8)$  and  $(-5, -8)$

12. \_\_\_\_\_

13. Line 1:  $(2, 5)$  and  $(3, 1)$   
Line 2:  $(3, 2)$  and  $(7, 3)$

13. \_\_\_\_\_

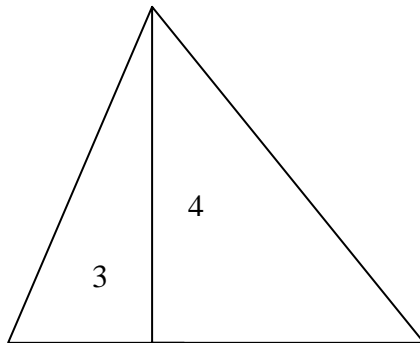
Name \_\_\_\_\_

Date \_\_\_\_\_

Solve.

14. A tent has the dimensions shown in feet. Find the pitch (slope) of the left side of the roof.

14. \_\_\_\_\_



15. The approach ramp used by a daredevil motorcyclist for flying over a collection of flaming barrels of oil has a rise of 44 feet for every 80 feet in horizontal distance. Find the grade of the ramp. Round the nearest whole percent.

15. \_\_\_\_\_

**Additional Exercises 4.3**  
**Form III**  
Slope

(a) Find the slope of the line passing through the pair of points or state that the slope is undefined. (b) Then indicate whether the line through the points rises, falls, is horizontal or is vertical.

1.  $(1, 6)$  and  $(1, -3)$

1a. \_\_\_\_\_

b. \_\_\_\_\_

2.  $(2, 4)$  and  $(-3, 5)$

2a. \_\_\_\_\_

b. \_\_\_\_\_

3.  $(-3, 7)$  and  $(2, -8)$

3a. \_\_\_\_\_

b. \_\_\_\_\_

4.  $(7, 2)$  and  $(-7, 2)$

4a. \_\_\_\_\_

b. \_\_\_\_\_

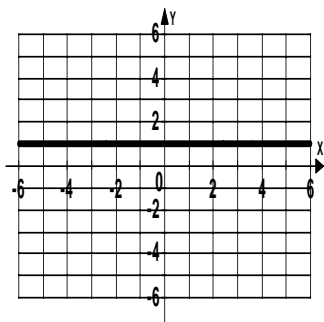
5.  $(5, 1)$  and  $(-8, -3)$

5a. \_\_\_\_\_

b. \_\_\_\_\_

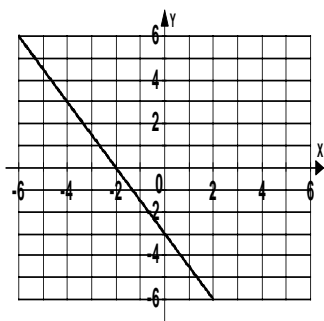
Fine the slope of the following lines .

6.



6. \_\_\_\_\_

7.

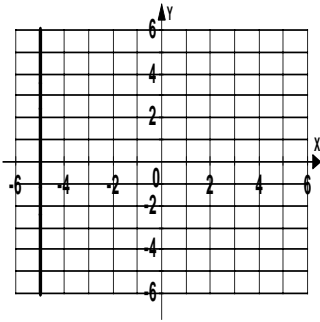


7. \_\_\_\_\_

Name \_\_\_\_\_

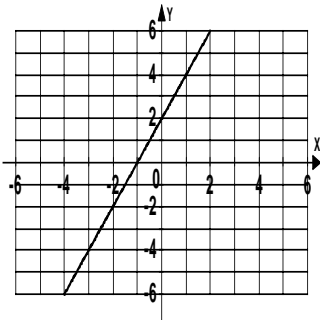
Date \_\_\_\_\_

8.



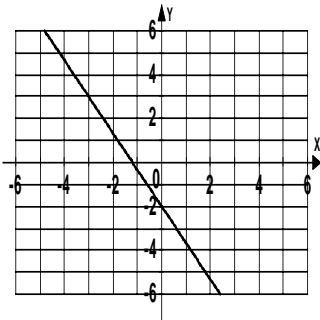
8. \_\_\_\_\_

9.



9. \_\_\_\_\_

10.



10. \_\_\_\_\_

Determine if the lines passing through the given pairs of points are parallel, perpendicular, or neither.

11. Line 1: (1, 5) and (2, 7)  
Line 2: (4, 5) and (6, -2)

11. \_\_\_\_\_

12. Line 1: (6, 4) and (6, 2)  
Line 2: (-1, 8) and (2, 8)

12. \_\_\_\_\_

13. Line 1: (7, -9) and (4, -10)  
Line 2: (3, -3) and (6, -2)

13. \_\_\_\_\_

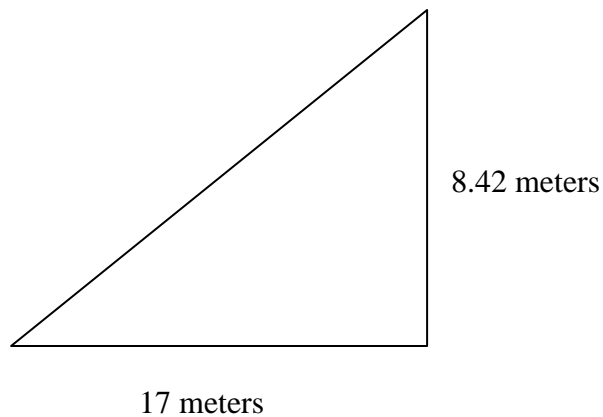
Name \_\_\_\_\_

Date \_\_\_\_\_

Solve.

14. A section of a roller coaster track has the dimensions shown in the diagram. Find the grade of the track, which is the slope written as a percent. Round to the nearest whole percent.

14. \_\_\_\_\_



15. The approach ramp used by a daredevil motorcyclist for flying over a collection of flaming barrels of oil has a rise of 52 feet for every 90 feet in horizontal distance. Find the grade of the ramp. Round the nearest whole percent.

15. \_\_\_\_\_