1

2

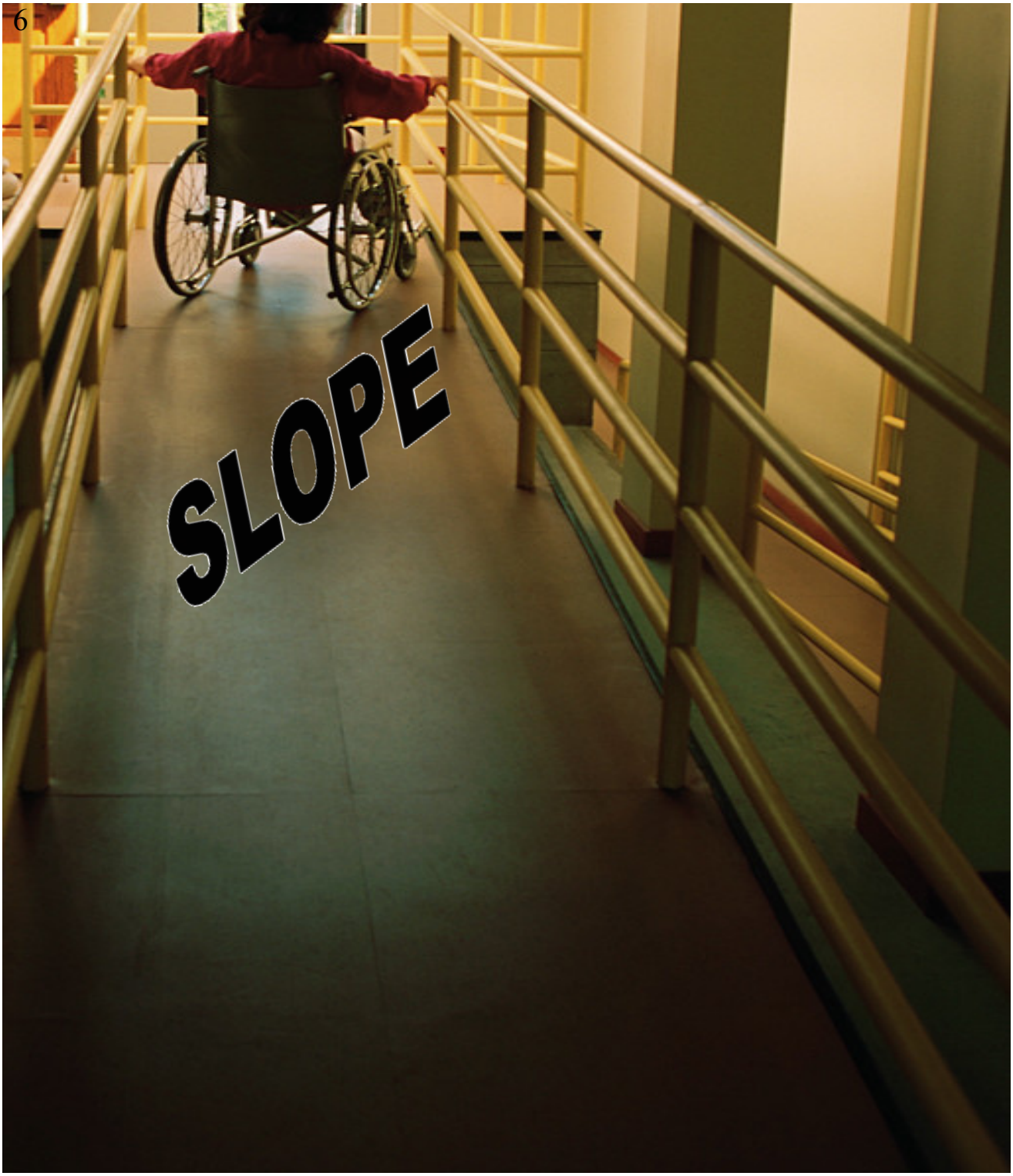
4


3
SLOPE

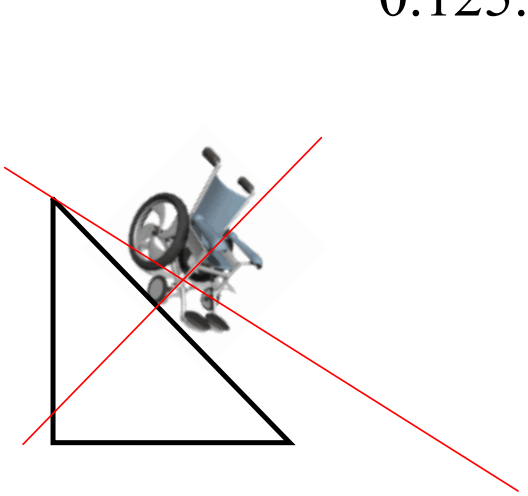
8

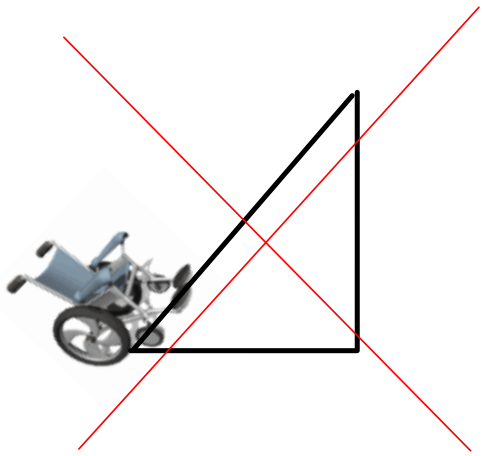
Building stairs
should
not exceed
a slope of
0.83

5


6
SLOPE

A wheelchair ramp should not exceed a slope of 0.125.





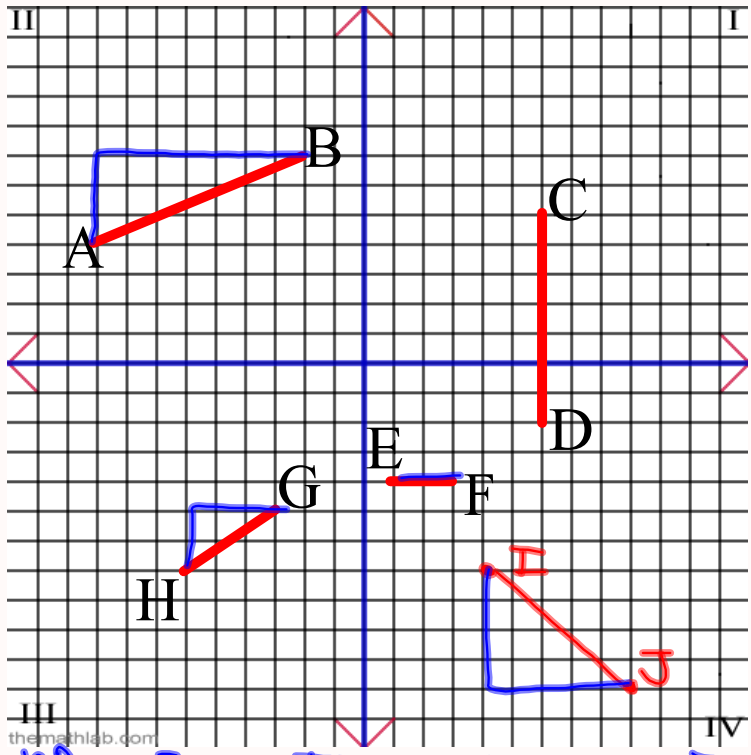
Types of Slope

Calculating slope!

$$\text{slope} = \frac{\text{rise}}{\text{run}}$$

$$m = \frac{\text{rise}}{\text{run}}$$

11



$AB = \frac{3}{7}$ $IJ = \frac{-4}{5}$ $CD = \frac{7}{0}$

$GH = \frac{-2}{3}$ $EF = \frac{0}{2} = 0$ = Undefined

slope = $\frac{\text{rise}}{\text{run}}$

This is used when you can see the graph!

Slope of a Horizontal Line = 0

$= 0$ $= \frac{0}{1}$

Slope of a Vertical Line = Undefined or 1/0

$= 1/0$ or Undefined

Calculating slope!

$$slope = \frac{y_2 - y_1}{x_2 - x_1}$$

Calculating slope!

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

Find the slope of a line passing through the points (2,-3) and (-5,8).

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

This is used when you are given co-ordinates.

(x, y)

let x_1 y_1 and x_2 y_2

$(2, -3)$ $(-5, 8)$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{8 - -3}{-5 - 2}$$

$$m = \frac{8+3}{-7}$$

$$m = \frac{11}{-7}$$

Find the slope of a line passing through the points (-5, -7) and (-3,9).

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

1st x_1 y_1 and x_2 y_2

$(-5, -7)$ $(-3, 9)$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{9 - -7}{-3 - -5}$$

$$m = \frac{9+7}{-3+5}$$

$$m = \frac{16}{2}$$

$$m = \frac{8}{1}$$

Find the slope of a line passing through the points (6, -4) and (-2,10).

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

1st $x_1\ y_1$ and $x_2\ y_2$

$(6, -4)$ $(-2, 10)$

$m = \frac{y_2 - y_1}{x_2 - x_1}$

$m = \frac{10 - -4}{-2 - 6}$

$m = \frac{10 + 4}{-8}$

$m = \frac{14}{-8}$

$m = \frac{7}{-4}$

1st $x_1\ y_1$ 2nd $x_2\ y_2$

$(-2, 10)$ $(6, -4)$

$m = \frac{y_2 - y_1}{x_2 - x_1}$

$m = \frac{-4 - 10}{6 - -2}$

$m = \frac{-14}{6 + 2}$

$m = \frac{-14}{8}$

$m = -7/4$

Calculate the slope.

1. (3,5) (2,8)

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{8-5}{2-3}$$

$$m = \frac{3}{-1}$$

$$m = \frac{-3}{1_1}$$

2. (-9,-2) (7,3)

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{3-(-2)}{7-(-9)}$$

$$m = \frac{3+2}{7+9}$$

$$m = \frac{5}{16}$$

3. (-1,2) (0,-4)

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{-4-2}{0-(-1)}$$

$$m = \frac{-4-2}{0+1}$$

$$m = \frac{-6}{1}$$