NAME: Period: SCORE:_____/_____=_____%=_____

HW 8-3

Int 1 — Percent of Change — Unit 8

A **percent of change** is a ratio that compares the change in quantity to the original amount .If the original quantity is increased, it is a **percent of increase.** If the original quantity is decreased, it is a **percent of decrease.**

$$\frac{change}{old} = \frac{\%}{100} \qquad \frac{difference}{original} = \frac{\%}{100}$$

Find each percent of change. Round your answers to the nearest whole percent if necessary. State whether the percent of change is an *increase* or *decrease*.

1) 8 feet to 10 feet

2) 136 days to 85 days

3) $0.32 to $0.37

4) 62 trees to 31 trees

5) 51 meters to 68 meters

6) 16.5 grams to 24.8 grams

7) 0.55 minutes to 0.1 minutes

8) $180 to $210

Find each percent of change. Round your answers to the nearest whole percent if necessary. State whether the percent of change is an *increase* or *decrease*.

9) 2.9 months to 4.9 months

10) 0.5 to 0.75

11) 0.1 to 0.2

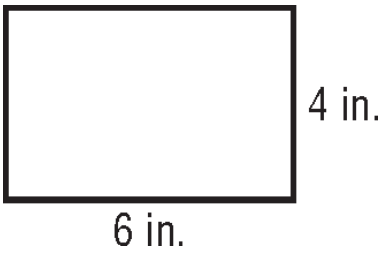
12) 1.5 to 0.375

13) Recent developments in surgical procedures change the average healing time in some operations from 8 weeks to 3 weeks.

14) The city added an extra lane in each direction to the 5-lane road.

Refer to the rectangle shown. Suppose the width of 4 inches decreases by 3 inches.

15) Find the percent of change in the perimeter of the rectangle.



16) Find the percent of change in the area of the rectangle.

Refer to the table that shows the average monthly rainfall during the first six months of the year for Singapore.

Month	Average Rainfall (inches/month)
January	9.4
February	6.5
March	6.8
April	6.6
May	6.7
June	6.4

17) Between which two consecutive months is the percent of decrease the greatest? What is that percent change to the nearest whole percent?

18) Between which to consecutive months is the percent of increase the least? What is that percent of change to the nearest whole percent?

Find each percent of change. Round to the nearest whole percent if necessary. State whether the percent of change is an *increase* or *decrease*.

19) Original: 4
New: 5

20) Original: 1.0
New: 1.3

21) Original: 15
New: 12

22) Original: $30
New: $18

23) Original 60
New: 63

24) Original: 160
New: 136

25) Original: 7.7
New: 10.5

26) Original: 9.6
New: 5.9