Financial & Workplace 110

Week 1 Lesson 2

Goal: Be able to use slope as percent grade to solve problems.

The **grade** of a road is the slope of the road and is usually expressed as a percent.

Warning signs are usually placed in areas where the grade is 6% or greater.

Examples:



Answers:

1. (a) The sign warns drivers that they are approaching a steep hill or decline. They should lower their speeds. Large trucks with loads should uses a lower gear.

(b) The slope of the road is 10% or 0.10.

(c) 10% = $\frac{10}{100}$ =$\frac{1}{10}$ ( always reduce fractions)



1. Slope = $\frac{18}{100}$ = $\frac{9}{50}$
2. The road drops 18 units for every 100 units horizontally.

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1. Slope = $\frac{5}{40}$ = $\frac{1}{8}$
2. Percent grade = 1 $÷$ 8 = 0.125

 = 0.125 x 100% = 12.5%

A warning sign is required.

Grade is 13%.

Practice questions from book

p. 282 #1 to 9