

1.1

SLOPE

Topics:

1. Why is slope important
2. Definition of slope
3. Determining slope

Key Terms

*dependent variable

* grade

*independent variable

* rate of change

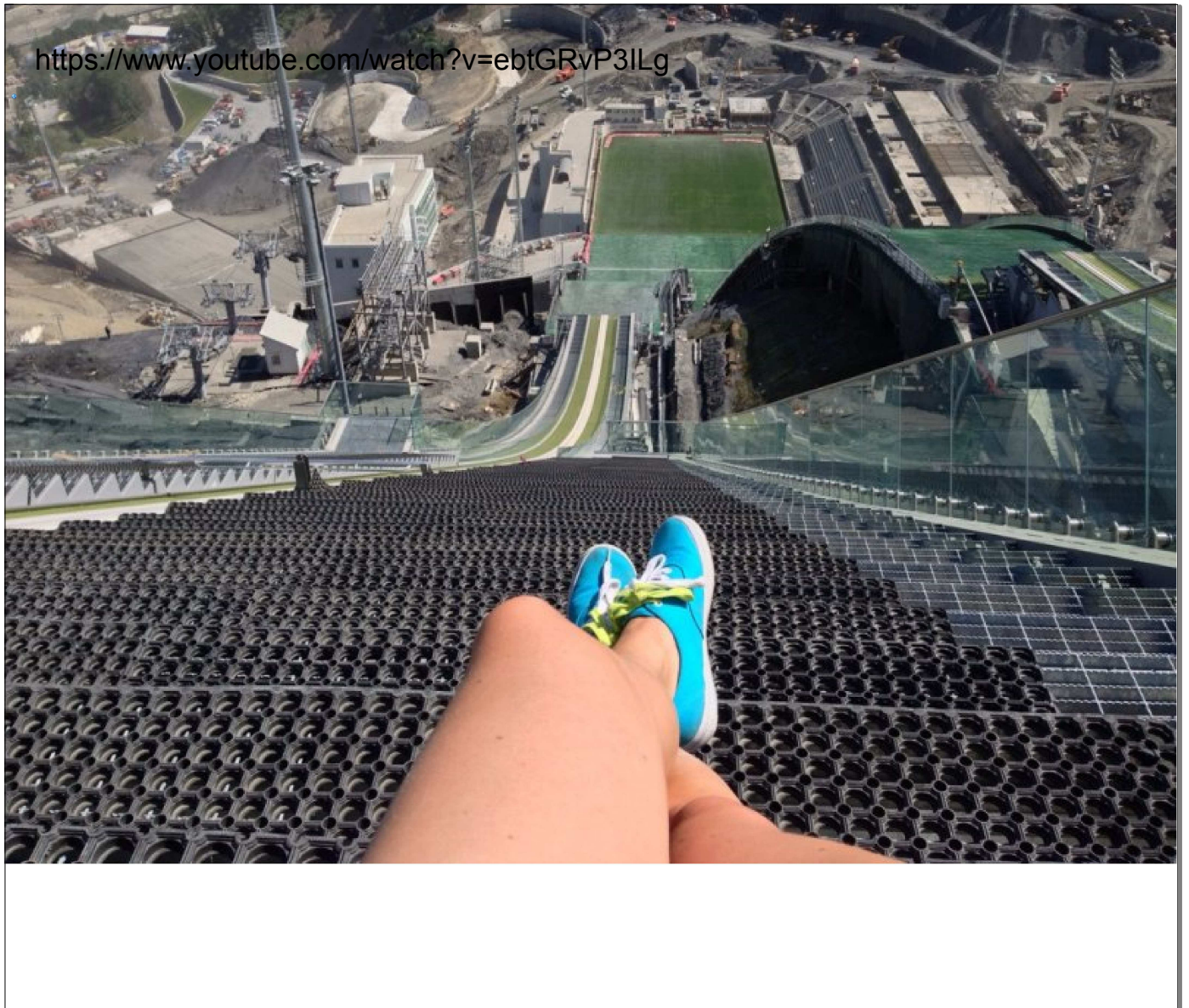
* rise

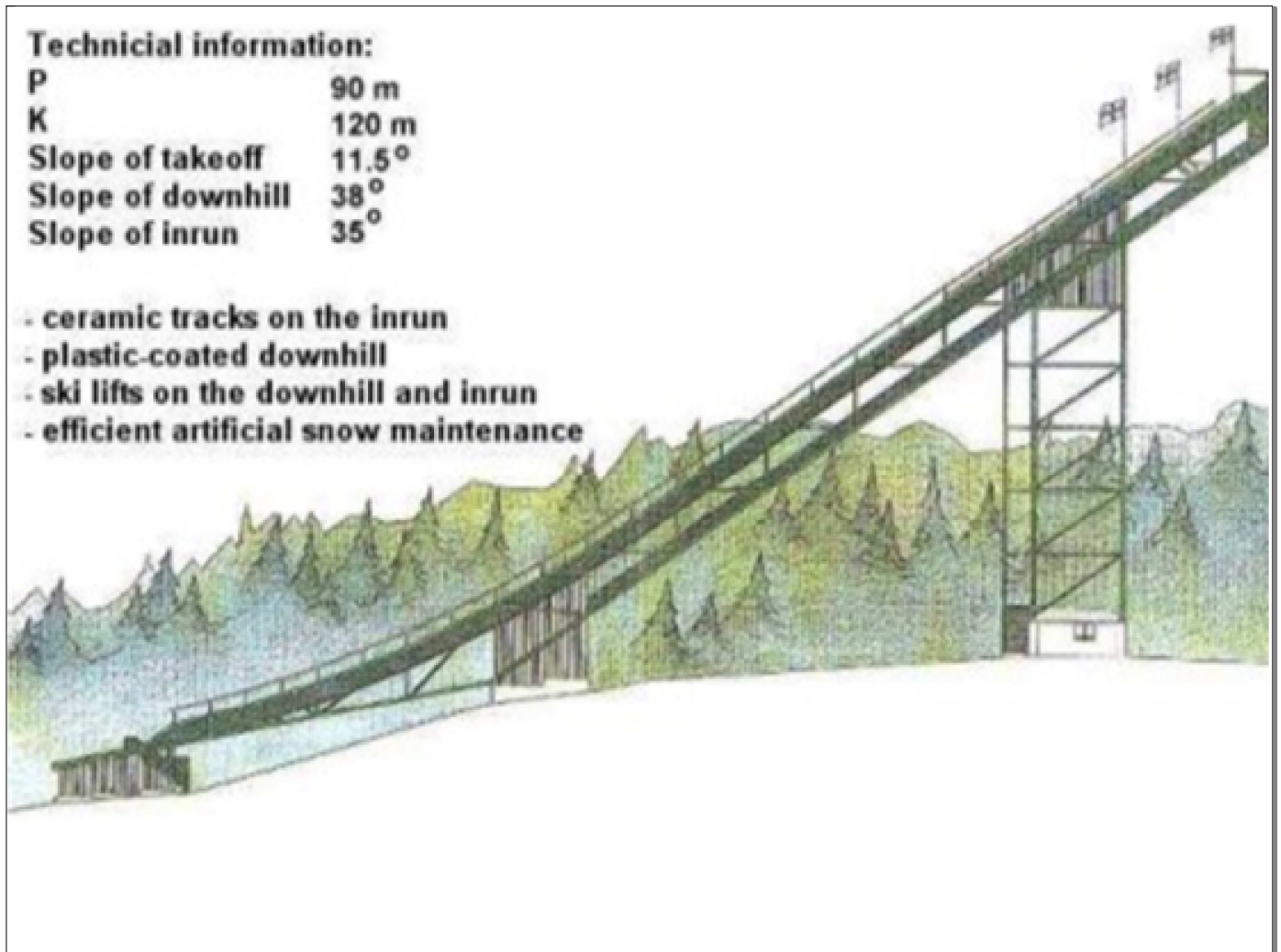
* run

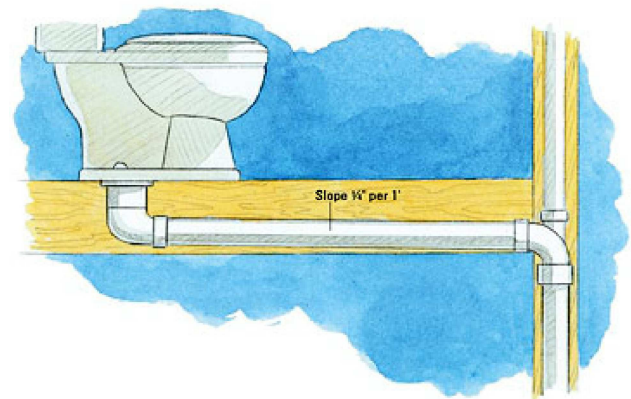
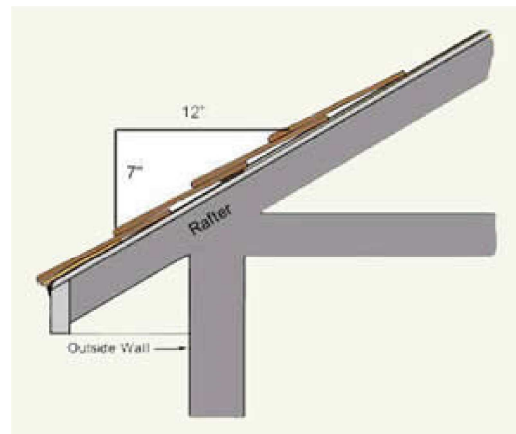
* slope

* undefined slope

* zero slope

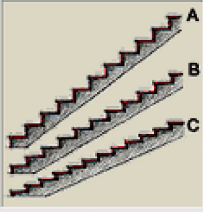






Code Limits

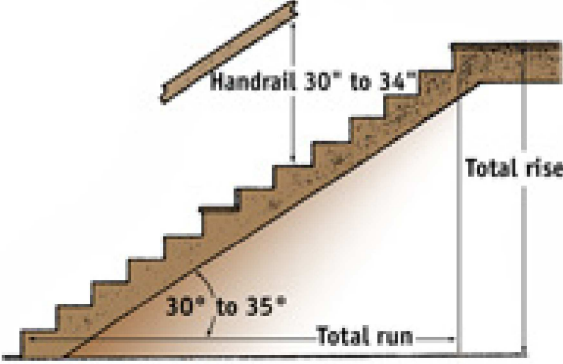
	Riser Height	Tread Depth
A - Maximum Slope	7"	11"
B - Optimum Slope	7"	11"
C - Minimum Slope	6"	1'-0"



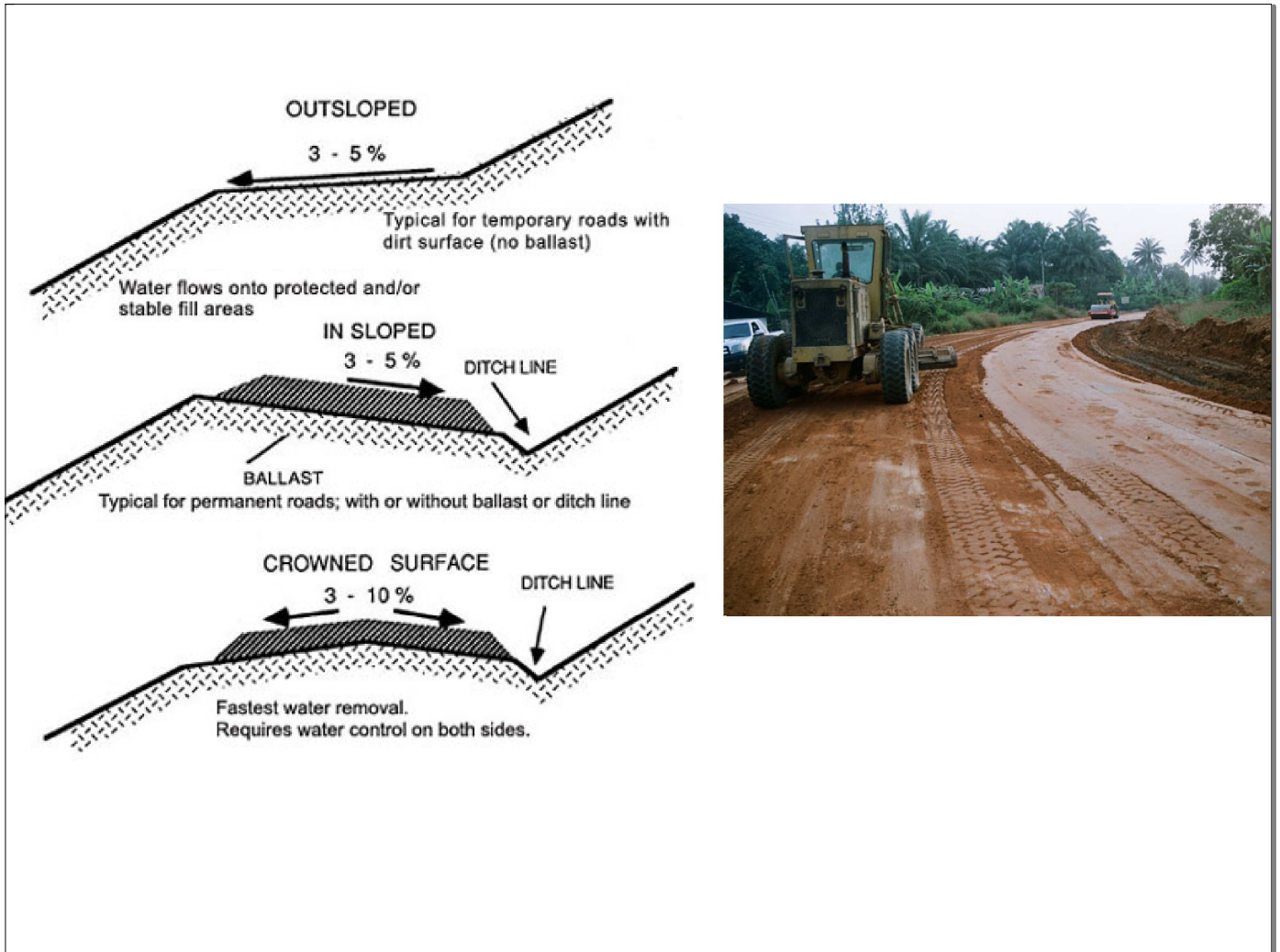
Calculator Rule

Use Rule Based Calculator

Minimum Limit: <= (* Riser Height + * Tread Depth) <= Maximum Limit:



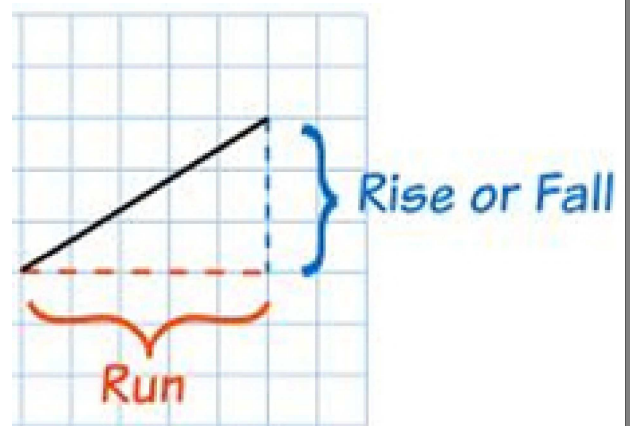




Slope is a number that describes how steep something is slanted

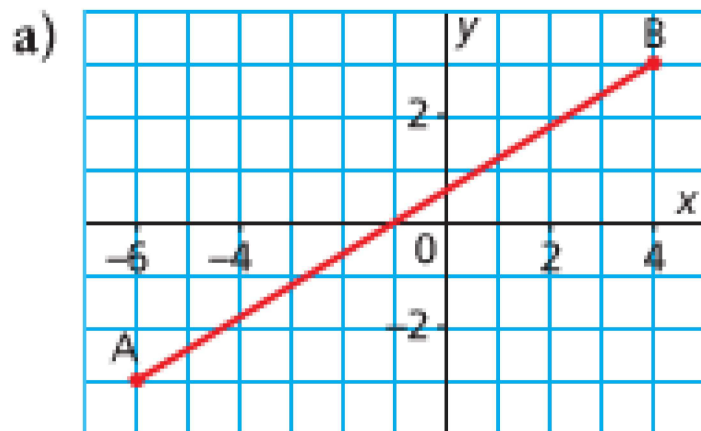
$$\text{slope} = \frac{\text{rise}}{\text{run}}$$

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



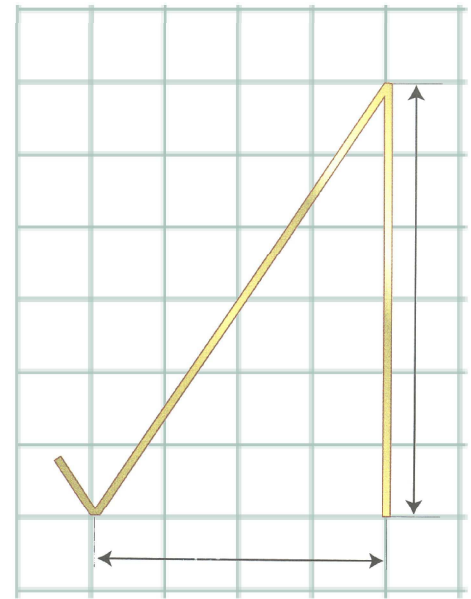
asdfs

Determine the slope of the red line



Example 1

Charlene is working on a project in her Art Metal class. She wants to make a brass cookbook holder like the one in the diagram. She does not have a protractor to measure the angle, but the diagram is drawn on graph paper.



a) What is the slope of the cookbook holder?

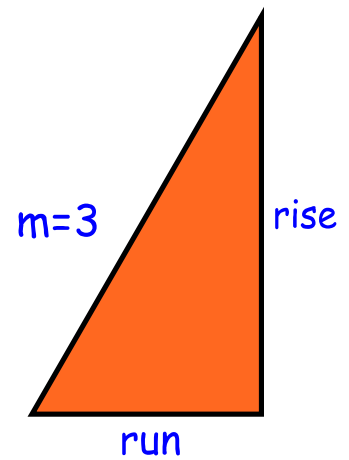
b) What does your answer tell you about the relationship between the vertical change and the horizontal change of the cookbook holder?

c) Andy says the slope is $\frac{4}{3}$. Amanda uses her calculator and gets the answer 1.5.

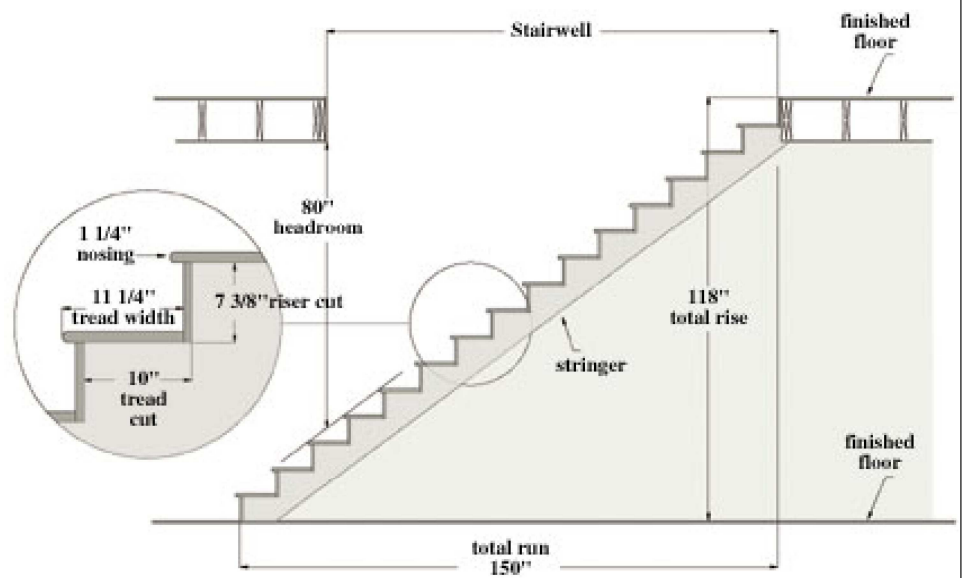
Jennifer says the slope is 6:4. Explain who is correct.

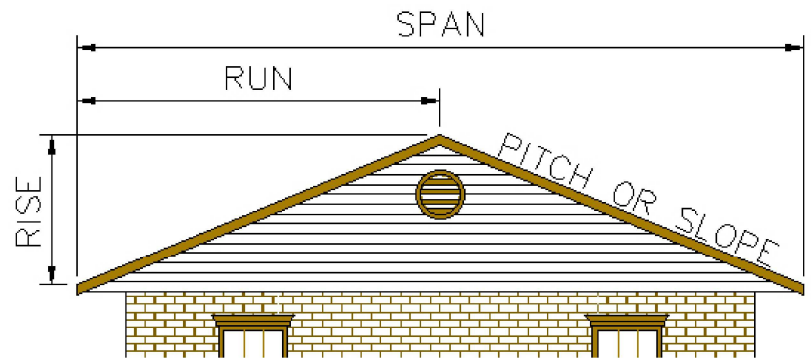
Example 3

A ramp has a slope of 3. What are some possible sets of values for the rise and run?



Find the slope of the stairs





Let's find the slope of some slants around the school....

- 1. Green rack**
- 2. Desk**
- 3. Stairs**
- 4. Grass on North side**
- 5. On top of lockers**

We need metre sticks (or measuring tapes) and a level

Assignment

Workbook page 14

Build Your Skills

7 - 13

Practise Your New Skills

1 - 9

