

Slope Calculation Field Sheet

Ages 10+, with unit conversions and division

Name: _____ Date: _____

Use a tabletop model or adult-supplied measurements. This is a mathematics exercise, not a drainage design.

Grade (%) = vertical change / horizontal distance x 100. Use the same units. 6 inches / 240 inches x 100 = 2.5%.

6-inch change over 40 feet: grade =

2% grade over 10 feet: vertical change =

Convert 15 feet to inches:

List two things a grade percentage does not tell you:

Do not measure in active work areas. An adult provides site measurements; actual construction needs appropriate expertise.

Workspace & adult notes

Answer check / discussion

1. 1.25%
2. 2.4 inches
3. 180 inches
4. Examples: where water should discharge; whether a design is suitable.

What was clear? What would we change next time?
