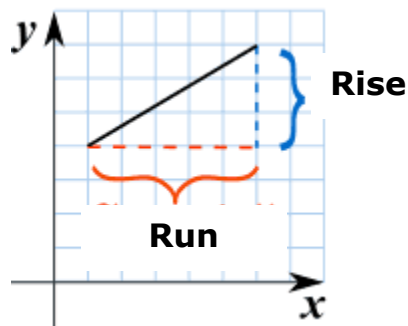## Lesson: Slope
The **slope** (also called gradient) of a straight line shows how _____ a straight line is.

To Calculate the Slope
Divide the **change in height (rise)** by the **change in horizontal distance (run)**
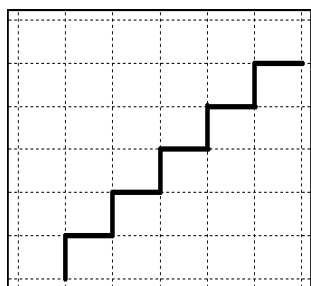
$$\text{Slope} = \frac{\text{rise}}{\text{run}}$$

LEVELS (AMOUNT) OF SLOPE

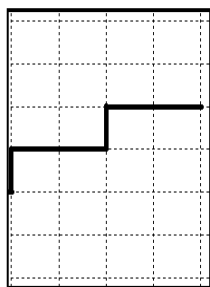|	ZERO or LEVEL	GENTLE	MODERATE	STRONG	EXTREME	STEEP
SLOPE (%)	0%	2 - 9%	9 - 15%	15 - 45%	45 - 70%	70% -100%
DEGREE (°)	0º	1.1 - 5º	5 - 8.5º	8.5 - 24º	24 - 35º	35 - 45º

Example: For each staircase, count squares to determine the rise and the run and calculate the **slope**. Remember , $slope = \dfrac{rise}{run}$
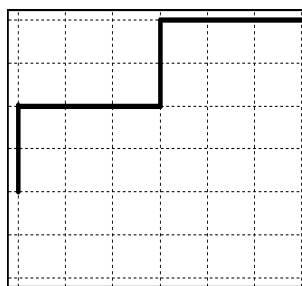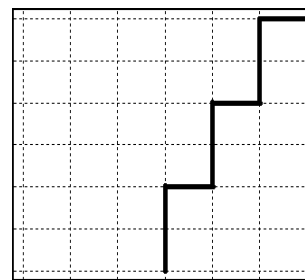

Rise=   Rise=   Rise=   Rise=

Run=   Run=   Run=   Run=
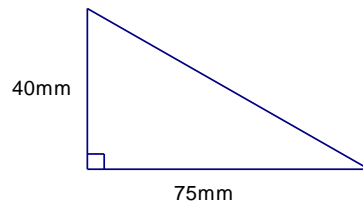
Slope=   Slope=   Slope=   Slope=
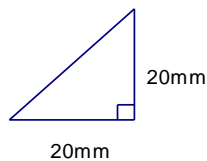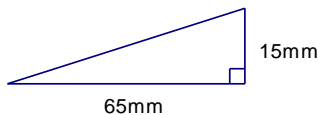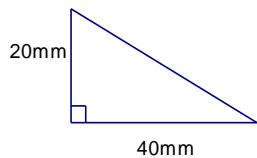
Thinking:

Each of the following diagrams represents a wheelchair ramp. Wheelchair ramps cannot have a slope steeper than ¼ or 0.25. Calculate the slope of the following to determine which, if any of these ramps are safe.

20mm   40mm   65mm   15mm   20mm   20mm   40mm   75mm

Rise=	Rise=	Rise=	Rise=
Run=	Run=	Run=	Run=
Slope=	Slope=	Slope=	Slope=

TYPES OF SLOPES

3 / 5	-4 / 2	5 — 0	3 / 0
Positive Slope (uphill)	Negative Slope (downhill)	Zero Slope	Undefined Slope
ascending, increasing	descending, decreasing	horizontal	vertical

+ −

0   0