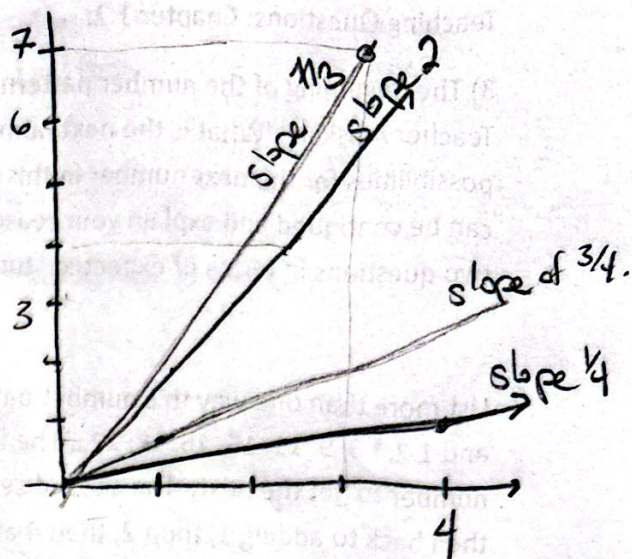


Coordinates & Lines

#5) Arrange the following slopes in order from steepest to most flat:
 $\frac{1}{4}$ $\frac{3}{4}$ $\frac{7}{3}$ 2

We could sketch the slopes recalling that slope = $\frac{\text{rise}}{\text{run}}$.

For example slope of $\frac{1}{4}$ could be interpreted as $\frac{\text{rise} = 1 \text{ (and)}}{\text{run} = 4}$



Consider a slope of $\frac{3}{4}$ we could also interpret as $\frac{\text{rise} = \frac{3}{4} \text{ (and)}}{\text{run} = 1}$. Note the dots $(0,0)$ & $(1, \frac{3}{4})$ are close but a ruler can be used to make the line.

Now a slope of $\frac{7}{3}$ we'll use $\text{rise} = 7$ and $\text{run} = 3$ again

Finally a slope of 2 or $\frac{2}{1}$. So we rise 2 and run 1 .

Looking at the graph then: steepest to most flat: $\frac{7}{3}, 2, \frac{3}{4}, \frac{1}{4}$

OR

Let's find equivalent fractions with the same denominator so we can more directly compare the fractions.

A common denominator will need to be a multiple of 4 and 3 .

Let's use 12 as the common denominator.

$$\frac{1}{4} \times \frac{3}{3} = \frac{3}{12}, \quad \frac{3}{4} \times \frac{3}{3} = \frac{9}{12}, \quad \frac{7}{3} \times \frac{4}{4} = \frac{28}{12}, \quad 2 = \frac{2}{1} \times \frac{12}{12} = \frac{24}{12}$$

Since each fraction has the same parts of a whole/denominator, we can order from largest (most rise) to smallest (least rise):

$$\frac{28}{12}, \frac{24}{12}, \frac{9}{12}, \frac{3}{12} \quad \text{or in lowest terms} \quad \frac{7}{3}, 2, \frac{3}{4}, \frac{1}{4}$$