Transcomputation - Exercise 4

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Note

The gradient, m, from point $P_1 = (x_1, y_1)$ to $P_2 = (x_2, y_2)$ is given by:

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

1 Calculate the Gradient Between:

- 1.1 (2,4) and (2,8).
- 1.2 (2,8) and (2,4).
- 1.3 (2,4) and (8,4).
- 1.4 (8,4) and (2,4).
- 1.5 (2,4) and $(\infty,4)$.
- 1.6 (2,4) and $(\infty,8)$.
- 1.7 (2,4) and (∞,∞) .
- 1.8 (2,4) and $(2,\Phi)$.

2 Sketching Functions

- 2.1 Draw the 2D, Cartesian, x- and y-axes.
- 2.2 Sketch all of the position vectors with a gradient of $-\infty$.
- 2.3 Sketch all of the position vectors with a gradient of ∞ .
- 2.4 Sketch all of the position vectors with a gradient of $\Phi.$
- 2.5 Sketch all of the position vectors with a gradient of 0.