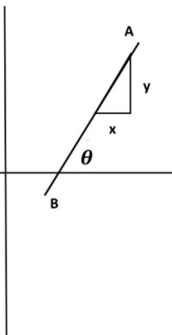# a. Angle of inclination

Thinking exercise 1

Only do this section after you have completed the chapter on trigonometry.

Do research in your textbook and explain your understanding of angle of inclinations.

1. Indicate the position of the angle of inclination.

2. Where do angles of inclination ALWAYS start?

3. What will happen with line AB if you shorten x towards the 90^0 angle?

4. What will the effect be on the angle of inclination?

5. What will happen with line AB if you shorten y towards the 90^0 angle?

6. What will the effect be on the angle of inclination?

7. Which trigonometric relation is indicated by $\frac{Opposite\ side}{Adjacent\ side}$?

Thinking exercise 2

1. What will happen when your line has a negative slope? What effect will it have on tan if tan = negative? What does it mean?

2. Draw a straight line with a negative slope and determine its angle of inclination.

3. Does you answer represent a plausible representation of the angle of inclination or do you have to rework the answer? Motivate.

Thinking exercise 3

1. Do similar sums from your textbook to prove that you have fully mastered the work.
2. Use lines and arrows and number the steps you followed to demonstrate how you did the sum.
3. Which questions should you ask yourself to ensure that each sum you do is correct? If you were to mark another learner's work, on what would you focus to determine if the sum was correctly done or not?
4. Which sums in your textbook are more difficult? What makes these sums more difficult? How did you cleverly/creatively go about mastering the more difficult ones?
5. Do sums from test and exam papers. What makes these sums more difficult? How did you cleverly/creatively go about mastering the more difficult ones?
6. Formulate a strategy that you can use to empower another learner to master the method as well.