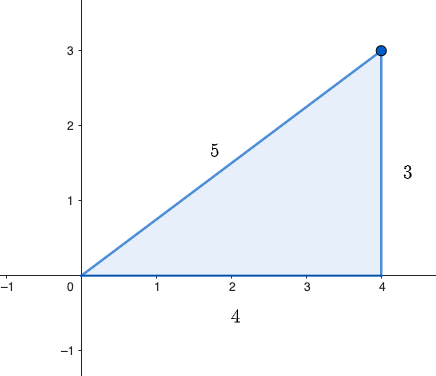
**4.3 – TRIGONOMETRIC RATIOS**

**I – 6 Trigonometric Ratios:**

**Primary Ratios:**

**Reciprocal Ratios**:

Examples:



**Remember:**

**A close-up of several letters

Description automatically generated A circle with a line and a circle with a line in the center

Description automatically generated**

**II – Determining a trigonometric ratio given the angle:**

**🡪 If the angle is a “special” angle**

You are expected to give exact values.

Examples: Determine the following ratios:



Your turn p 195



**🡪 If the angle is not “special”**

You will just use your calculator to get the value of the ratios, but the values won’t be exact.

Be careful to make sure the mode of the calculator matches the unit used…

Examples:

1. c)

**III – Determining a trigonometric ratio given the coordinates of a point on its terminal arm:**

Example: A(-4,3) is on the terminal arm of an angle in standard position.   
 Determine the 6 trig ratios of that angle.

**IV – Determining a trigonometric ratio given another ratio:**

Example: is in quadrant III and . Determine and .

**V – Determining an angle given a trig ratio:**

Reminder:

Special values for **sin** and **cos**:

Special values for **tan**:

For these values, we expect exact angles.

Examples:

1. Solve for .
2. Solve for .
3. Solve for .
4. Solve for .
5. Solve for .
6. Solve for .
7. Solve for .

**NOTE:** The values of and can only be between -1 and 1 included.  
 Therefore an equation like has no solution!

**Hwk: p 201 # 1 – 17, 19 – 21.**