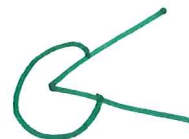
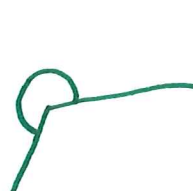


5.1 Describing, Measuring and Estimating Angles

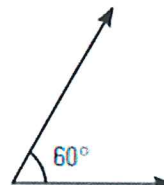
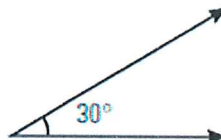
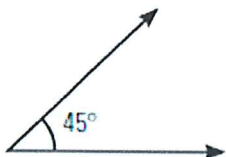
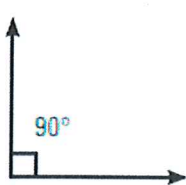
An **angle** is formed when two rays meet at a point called the **vertex**. Angles are usually measured in degrees using a **protractor**. Angle measures range from 0° to 360° .

Angles are:

- **acute**, if their measure is between 0° and 90°
- **right**, if their measure is 90° (the two rays are perpendicular to each other)
- **obtuse**, if their measure is between 90° and 180°
- **straight**, if their measure is 180°
- **reflex**, if their measure is between 180° and 360°

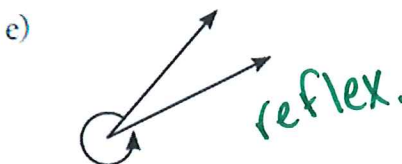
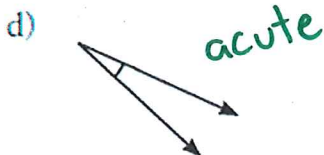


In many jobs, people have to draw angles or estimate their measure. To estimate the size of an angle, you can use **referent angles**, which are angles that are easy to visualize. You can use these referents to determine the approximate size of a given angle:

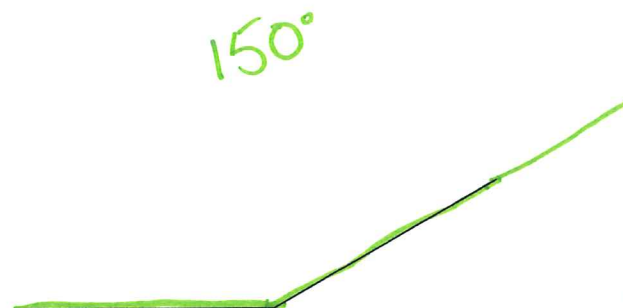
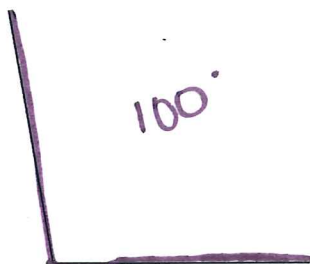
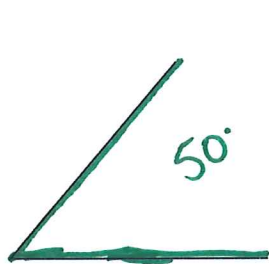


Examples

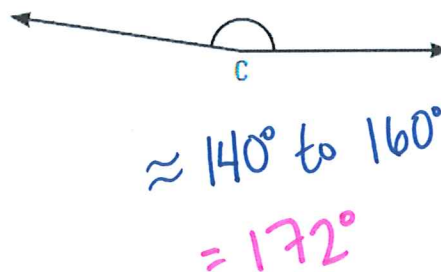
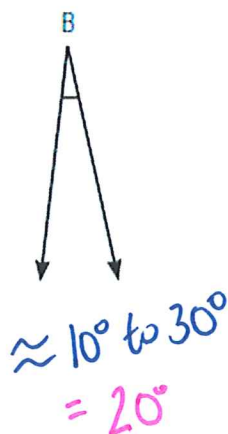
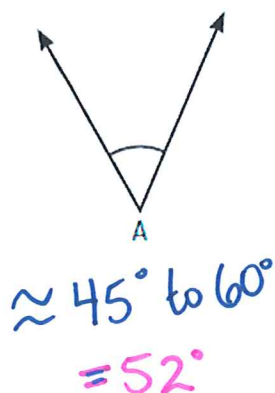
Ex 1. Identify the type of angle: acute, right, obtuse, straight, or reflex.



Ex 2. Measure the following angles using a protractor:



Ex 3. Use referent angles to estimate the size of each of the following angles. Then use a protractor to check your answers.



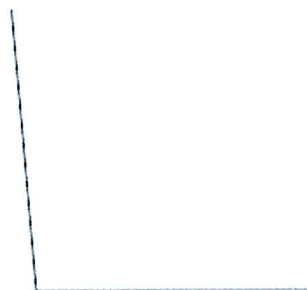
5.1 Practice

Use a protractor to measure the following angles:

1)



2)



3)



4)

