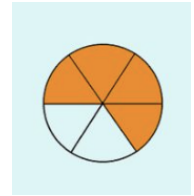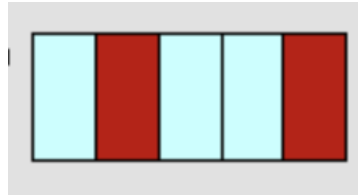# Fractions

While working in a group make sure you:

- Expect to make mistakes but be sure to reflect/learn from them!
- Are civil and are aware of your impact on others.
- Assume and engage with the strongest argument while assuming best intent.

1. Find the fraction for the shaded part of each figure

2. Sketch a model for $\frac{2}{3}$ and $\frac{11}{6}$

3. For (2) determine which fraction is larger.

4. Let a be a non-zero integer. Simplify the fractions to put them in lowest terms:

   (a) $\dfrac{20 + 8}{24}$

   (b) $\dfrac{4a}{6a^2}$

   (c) $\dfrac{6 + 2a}{10a}$

5. Let a and b be nonzero numbers. Determine if the following statements are always true, sometimes true, or never true. Briefly justify your answer.

   (a) If b divides a, then b can be used as a common denominator when comparing $\frac{1}{a}$ and $\frac{1}{b}$.

   (b) Any common multiple of a and b could be used as a common denominator when comparing $\frac{1}{a}$ and $\frac{1}{b}$.

6. Let a be a non-zero integer. The following work is wrong. Detect the error and try to detect the reason for the error:

$$\frac{2a + a^2}{3a} = \frac{2 + a^2}{3}$$