Math 70 Quiz #1 Solutions

1. (a) $\frac{4}{16} = \frac{4\times1}{4\times4} = \frac{\cancel{4}\times1}{\cancel{4}\times4}$ (Divide out the common factor of 4.)
$= \frac{1}{4}$

   (b) $\frac{20}{35} = \frac{5\times4}{5\times7} = \frac{\cancel{5}\times4}{\cancel{5}\times7} = \frac{4}{7}$

   (c) $\frac{15}{15} = 1$

2. Since the circle is divided into 5 equal parts and 1 part is polka-dotted, we can described the polka-dotted part as $\frac{1}{5}$.

3. (a) Since 13 divided by 5 gives a result of 2 with a remainder of 3, we have that $\frac{13}{5} = 2\frac{2}{5}$.
(Note: Since 2 and 5 have no common factors, our answer is as simplified as possible.)

   (b) Since 40 divided by 6 gives a result of 6 with a remainder of 4, we have that $\frac{40}{6} = 6\frac{4}{6}$.
Note that 4 and 6 have a common factor of 2, which means we can simplify our fraction.
$$\Rightarrow 6\frac{4}{6} = 6\frac{\cancel{2}\times2}{\cancel{2}\times3} = 6\frac{2}{3}.$$