

Student Work Sample G

First you turn all of the %'s and fractions to equivalent fractions. So $\frac{8}{40}$ are women, $\frac{15}{40}$ are boys and men. So then you add 8+15 and get 23, which you then subtract from forty getting 17. Now we know what fraction are girls. So $\frac{17}{40}$ is 68 then set up a proportion $\frac{17}{68} = \frac{8}{x}$ and solve for x which is 32 so there are 32 women. Now set up another proportion $\frac{17}{68} = \frac{15}{x}$ solve for x which is 60 then add 60+32 which is 92 then add 68 which would be 160. Then set up a third proportion $\frac{2}{160} = \frac{3}{x}$ solve for x. Which is 240. You do that because when the plane is $\frac{2}{3}$ full there are 160 people. So you want to find $\frac{3}{3}$.

The capacity is

240 Passengers