

Student Work Sample A

There are 240 seats on the air plane.

I found what each percentage (of the groups) equaled. On a plane that is two-thirds full, there are 32 women (20%), 40 boys (25%), 20 men (12.5%), and 68 girls (42.5%). After I added each amount together to find the total amount of present passengers. Then I took the total and divided it into half. I then took the quotient and multiplied it by three to find the total amount of passengers.

women = 20% — 32
 men = 12.5% (1/8) — 20
 girls = 68 [42.5%]
 boys = 25% — 40

$$20 + 12.5 + 25 = 57.5$$

$$100 - 57.5 = 42.5 (\% \text{ of girls})$$

$$\frac{42.5}{68} = \frac{25}{x} \quad \frac{20}{1700}$$

$$\frac{42.5}{68} = \frac{12.5}{x} \quad \frac{20}{1850}$$

$$\begin{array}{r} 32 \\ 20 \\ 68 \\ + 40 \\ \hline 160 \end{array}$$

$$\begin{array}{r} 80 \\ \times 3 \\ \hline 240 \end{array}$$