49. **Commercials**  During a 30–minute television show, a viewer found that the actual program aired a total of 18 minutes more than the time devoted to commercials. How many minutes of commercials were there?

**Solution:**

*Note:* a television show is comprised of “program” time and “commercial” time, together with add to yield the 30-minute “show” time.

Let \( a \) = the actual airtime of the **program** in minutes
Let \( c \) = the actual airtime of the **commercials** in minutes

\[
\begin{align*}
    a + c &= 30 \\
    a &= c + 18
\end{align*}
\]

\[(c + 18) + c = 30\]

\[
\begin{align*}
    2c + 18 &= 30 \\
    -18 &= -18
\end{align*}
\]

\[
\frac{2c}{2} = \frac{12}{2}
\]

\[
\boxed{c = 6}
\]

There were six minutes of commercials.