1.1 Homework Problems

(14) Show that "FOILing" works. That is,

$$(a + b)(c + d) = ac + ad + bc + bd.$$

(15) Prove that if $b \neq 0$ and $c \neq 0$, then

$$\frac{a}{b} = \frac{ac}{bc}.$$

(16) Prove that if $c \neq 0$, then

$$\frac{a}{c} + \frac{b}{c} = \frac{a + b}{c}.$$

(19) Prove that if $b \neq 0$ and $d \neq 0$, then

$$\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}.$$