Section 7-4
Selected Answers

12.) $5y = \frac{7}{3}y + 8$

$3(5y) = 3(\frac{7}{3}y) + 3(8)$

$15y = 7y + 24$

$8y = 24$

$y = 3$

$\frac{1}{3}x + 2 = \frac{2}{3}x - 4$

$x + 3(2) = 2x - 3(4)$

$x + 6 = 2x - 12$

$18 = x$

$x = 18$
$y = 3$

14.) $AE = 15$

16.) $AD = 4$

18.) $x = 35$, $AC = 32$, $CD = 40$

$\frac{AC}{CD} = \frac{AB}{BE}$

$\frac{x-3}{x+5} = \frac{16}{20}$

3
16
×5
80

$20(x-3) = 16(x+5)$

$20x - 60 = 16x + 80$

$4x =$

20.) no; $\frac{PQ}{QR} \neq \frac{PT}{TS}$
(show it algebraically)

22.) yes; $\frac{PQ}{QR} = \frac{PT}{TS}$