Ch. 7 Review

P.436

13) 5:2

$5x + 2x = 154$

$7x = 154$

$x = 22$

$5(22) = 110$ wins

$2(22) = 44$ loses

14) $5x + 7x = 180$

$12x = 180$

$x = 15$

larger $\angle$*

$7(15) = 105°$

17) $\frac{1}{3} \times \frac{x}{12}$

$3x = 12$

$x = 4$

23) $\frac{3}{5} \times \frac{6}{x+3}$

$30 = 3x + 9$

$-9 \quad -9$

$\frac{21}{3} = \frac{3x}{3}$

$7 = x$

P.444

1) $\angle H$

2) $\overline{JT}$

3) $\frac{24}{16} = \frac{3}{2}$

$\frac{18}{12} = \frac{3}{2}$

$\frac{24}{16} = \frac{3}{2}$

$\frac{12}{8} = \frac{3}{2}$

all same so yes

scale factor

$DEGH \sim PLQR$

4) $\frac{20}{10} = \frac{12}{x}$

$120 = 20x$

$6 = x$

P. 455

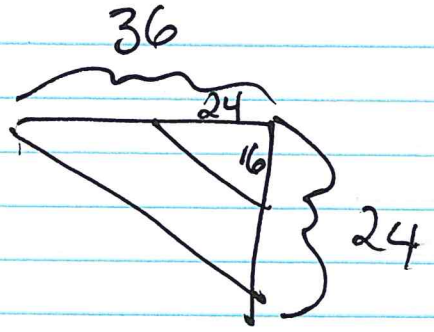
1) yes, AA

2) $\frac{6}{4}=\frac{3}{2}$, $\frac{4.5}{3}=\frac{3}{2}$, $\frac{3}{2}=\frac{3}{2}$ } yes, SSS

3) $\frac{12}{15}=\frac{14}{\cancel{20}\ 5}$, $\frac{16}{20}=\frac{4}{5}$ } so, yes by SAS

7) yes, AA

8) no $\frac{6}{6}\neq\frac{8}{10}$



9) $\frac{24}{36}=\frac{2}{3}$, $\frac{16}{24}=\frac{2}{3}$

share $\angle S$, so yes by SAS

10) no, ratios don't match up

P. 465

12) $\sqrt{40}$ or $2\sqrt{10}$ | $\sqrt{4\cdot10}$ / $\sqrt{3\cdot48}$

13) $\sqrt{144}=12$

14) $\sqrt{5\cdot125}=\sqrt{625}=25$

P.475

9) $\frac{5}{10} = \frac{6}{x}$

$60 = 5x$

$x = 7.5$

10) $\frac{x}{13-x} = \frac{2}{3}$

$3x = 26 - 2x$

$+2x \quad +2x$

$\frac{5x}{5} = \frac{26}{5}$

$x = 5.2$

11) $\frac{x}{8} = \frac{x+5}{12}$

$8x + 40 = 12x$

$40 = 4x$

$10 = x$

15) $\frac{4}{6} = \frac{5}{x}$

$30 = 4x$

$7.5 = x$

17) $\frac{9}{4} = \frac{11-x}{x}$

$9x = 44 - 4x$

$+4x \quad +4x$

$13x = 44$

$x = 3.4$

19) $\frac{12}{x} = \frac{10}{5}$

$60 = 10x$

$6 = x$

21) $\frac{14}{x} = \frac{8}{20}$

$280 = 8x$

$35 = x$