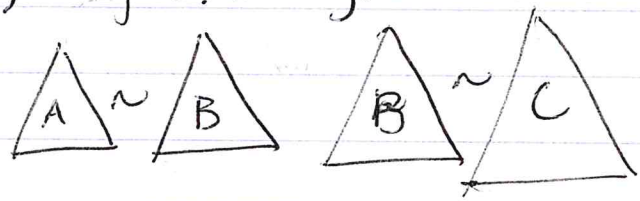
HW#1 pp 378-380: 1-19

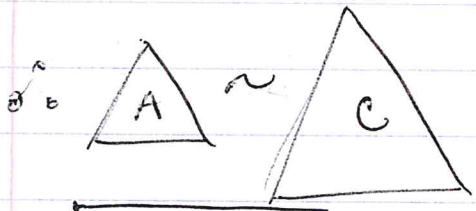
1) A is similar (rotate 90° cl, enlarge)

2) B

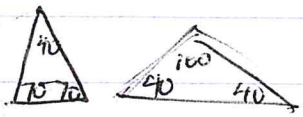
3) B is similar (reflect across →  after rotating 90° cl.)

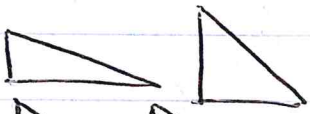
7) figure A ~ figure C

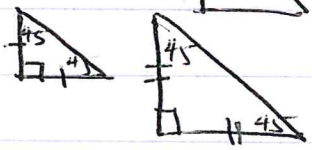


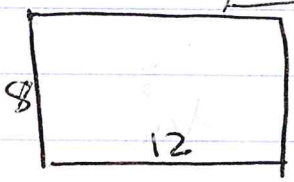


8) 1 (ratio = 1:1 or $\frac{1}{1}$)

9) no 

no 

yes 

10) 

$\frac{8}{5} \neq \frac{12}{9}$

so NO

12) NO Corresp L's are =

but $\frac{150}{165} \neq \frac{120}{128}$ (no common factors)

11) $\frac{TK}{LE} = \frac{4}{8} = \frac{1}{2}$ so side ratios = $\frac{1}{2}$

$\frac{AL}{HE} = \frac{x}{3} = \frac{2}{1}$ $x = 6$

AL or $\frac{3}{x} = \frac{1}{2}$ $x = 6$

they are 2x bigger in LARGE

so RA = 10 (5·2)

RG = 4 (2·2)

KN = $\frac{1}{2} \cdot 12 = 6$

13) $\frac{SP}{HN} = \frac{88}{66} = \frac{4}{3}$ proportionality of sides

$\frac{PT}{NY}$: $\frac{4}{3} = \frac{28}{x}$

$4x = 84$

$x = 21$

$\frac{4}{3} = \frac{56}{x}$ $x = 42$ (CY)

$\frac{4}{3} = \frac{36}{x}$ $x = 27$ (CM)

$\frac{4}{3} = \frac{40}{x}$ $x = 30$ (MB)

14) Yes CA are $\cong$

$\frac{21}{14} = \frac{30}{20} = \frac{27}{18} = \frac{39}{26} = \frac{78}{52}$

all = 1.5 or $\frac{3}{2}$

so they are similar

16) $\frac{3}{4} = \frac{8}{z}$

$3z = 32$

$z = 10\frac{2}{3}$

or 10.67 $\approx$

15) $\frac{SC}{EC} = \frac{4}{8} = \frac{1}{2}$ so $x = 3.5$

$y = 6$

(half of corresp sides

or $\frac{1}{2} = \frac{x}{7}$ $\frac{1}{2} = \frac{y}{12}$

17) on board)

$\angle AED \cong \angle ABC$ CA

$\angle ADE \cong \angle ACB$ CA

$\angle A \cong \angle A$ shared

CA are $\cong$

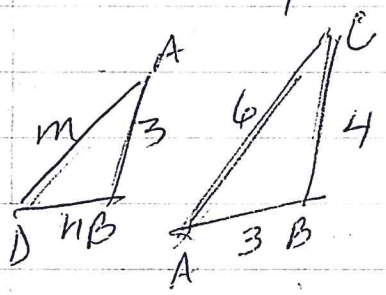
$\frac{2}{4\frac{2}{3}} = \frac{3}{7} = \frac{4}{9\frac{1}{3}}$

$\frac{3}{7} = \frac{3}{7} = \frac{3}{7}$

Sides are proportional

so $\triangle AED \sim \triangle ABC$

18)



$\frac{3}{4} = \frac{m}{6}$

$m = \frac{9}{2}$ or 4.5

$\frac{3}{4} = \frac{n}{3}$

$n = \frac{9}{4}$ or 2.25