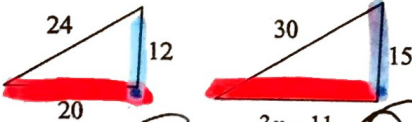


G3 B Level Test Review

Solve for x. The polygons in each pair are similar.

1) 

$$\frac{20}{3x-11} = \frac{12}{15}$$

$$12(3x-11) = 20 \cdot 15$$

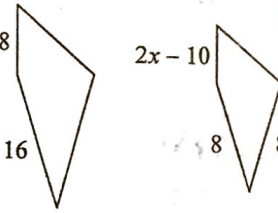
$$36x - 132 = 300$$

$$+132 \quad +132$$

$$36x = 432$$

$$\frac{36x}{36} = \frac{432}{36}$$

$$x = 12$$

2) 

$$\frac{8}{2x-10} = \frac{16}{8}$$

$$16(2x-10) = 8 \cdot 8$$

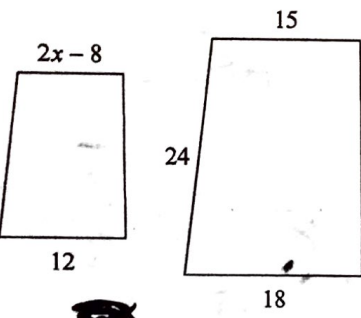
$$32x - 160 = 64$$

$$+160 \quad +160$$

$$32x = 224$$

$$\frac{32x}{32} = \frac{224}{32}$$

$$x = 7$$

3) 

$$\frac{2x-8}{15} = \frac{12}{18}$$

$$18(2x-8) = 12 \cdot 15$$

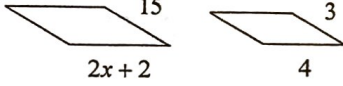
$$36x - 144 = 180$$

$$+144 \quad +144$$

$$36x = 324$$

$$\frac{36x}{36} = \frac{324}{36}$$

$$x = 9$$

4) 

$$\frac{15}{3} = \frac{2x+2}{4}$$

$$3(2x+2) = 15 \cdot 4$$

$$6x + 6 = 60$$

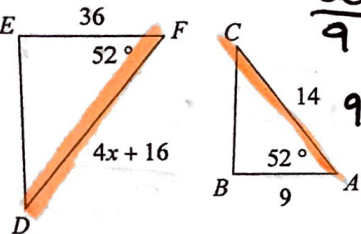
$$-6 \quad -6$$

$$6x = 54$$

$$\frac{6x}{6} = \frac{54}{6}$$

$$x = 9$$

Solve for x. The triangles in each pair are similar.

5) 

$$\frac{36}{9} = \frac{4x+16}{14}$$

$$9(4x+16) = 36 \cdot 14$$

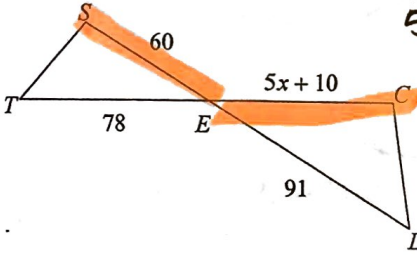
$$36x + 144 = 504$$

$$-144 \quad -144$$

$$36x = 360$$

$$\frac{36x}{36} = \frac{360}{36}$$

$$x = 10$$

6) 

$$\frac{60}{5x+10} = \frac{78}{91}$$

$$78(5x+10) = 5460$$

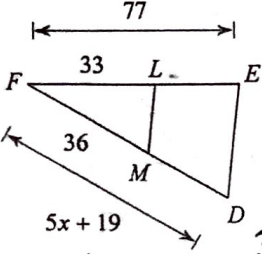
$$390x + 780 = 5460$$

$$-780 \quad -780$$

$$390x = 4680$$

$$\frac{390x}{390} = \frac{4680}{390}$$

$$x = 12$$

7) 

$$\frac{33}{5x+19} = \frac{36}{77}$$

$$33(5x+19) = 36 \cdot 77$$

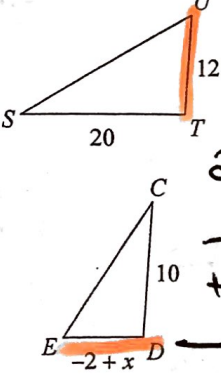
$$165x + 627 = 2772$$

$$-627 \quad -627$$

$$165x = 2145$$

$$\frac{165x}{165} = \frac{2145}{165}$$

$$x = 13$$

8) 

$$\frac{20}{-2+x} = \frac{12}{10}$$

$$20(-2+x) = 12 \cdot 10$$

$$-40 + 20x = 120$$

$$+40 \quad +40$$

$$20x = 160$$

$$\frac{20x}{20} = \frac{160}{20}$$

$$x = 8$$

Flow Charts are Required for B-Level

Make a flowchart to prove whether or not the triangles are similar.

9)

$\angle F \cong \angle N$
 Given
 $\angle G \cong \angle M$
 Given
 $\triangle FGH \sim \triangle NML$
 AA~

10)

$\frac{77}{22} = 3.5$
 Given Ratio
 $\angle DJC \cong \angle LJK$
 Vertical Angles
 $\frac{77}{22} = 3.5$
 Given Ratio
 $\triangle DJC \sim \triangle LJK$
 SAS~

11)

$\frac{26}{63} = .4127$
 $\frac{25}{56} = .4464$
 $\frac{33}{78} = .423$
 $\triangle UGH \not\sim \triangle UVW$
 Not Similar

12)

$\frac{16}{8} = 2$
 Given Ratio
 $\frac{18}{9} = 2$
 Given Ratio
 $\frac{22}{11} = 2$
 Given Ratio
 $\triangle RST \sim \triangle FED$
 SSS~

13)

$\triangle QCR \not\sim \triangle ECD$
 Not Similar

14)

$\frac{56}{8} = 7$
 Given Ratio
 $\frac{91}{13} = 7$
 Given Ratio
 $\frac{84}{12} = 7$
 Given Ratio
 $\triangle TCD \sim \triangle TRS$
 SSS~