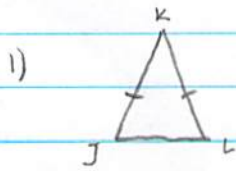
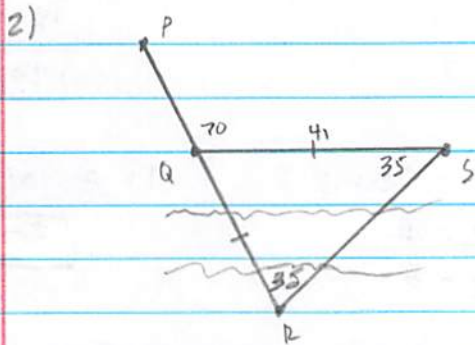


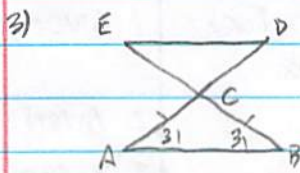
Pg 166 #1-25



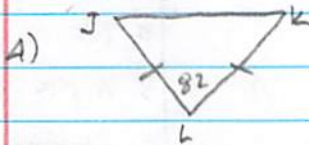
LEGS: \overline{JK} \overline{KL}
 BASE: \overline{JL}
 BASE \angle 's: $\angle KJL$, $\angle KLS$



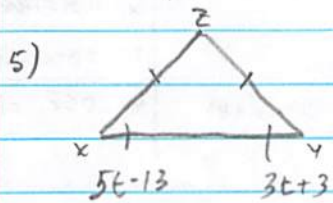
$QR = 41$



$m\angle BCD = 180 - 62 = \boxed{118}$



$m\angle K = 180 - 82 = 98 \div 2 = \boxed{49}$



$5t - 13 = 3t + 3$

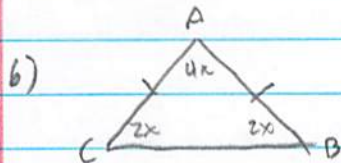
$m\angle X = 5(8) - 13$

$2t = 16$

$40 - 13$

$t = 8$

$\boxed{27}$



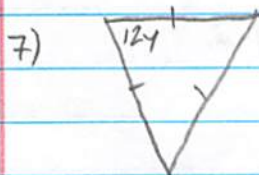
$4x + 2x + 2x = 180$

$m\angle A = 4(22.5)$

$8x = 180$

$\boxed{90}$

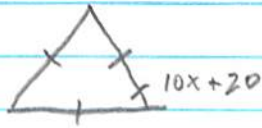
$x = 22.5$



$12y = 60$

$\boxed{y = 5}$

B)

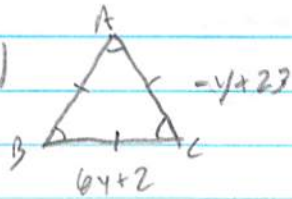


$$10x + 20 = 60$$

$$10x = 40$$

$$x = 4$$

9)



$$6y + 2 = -y + 23$$

$$7y = 21$$

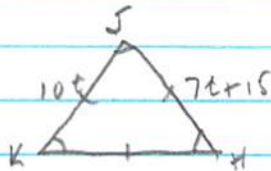
$$y = 3$$

$$BC = 6(3) + 2$$

$$18 + 2$$

$$20$$

10)



$$10t = 7t + 15$$

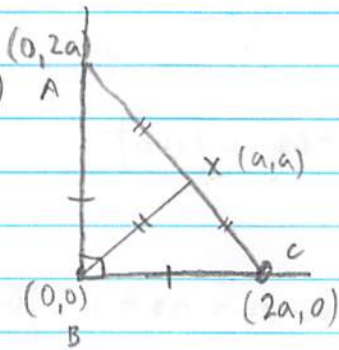
$$3t = 15$$

$$t = 3$$

$$JK = 10(3)$$

$$30$$

11)



$$X = \frac{0+2a}{2}, \frac{0+2a}{2}$$

$$(a, a)$$

$$BX = \sqrt{(a-0)^2 + (a-0)^2}$$

$$= \sqrt{a^2 + a^2}$$

$$= \sqrt{2a^2}$$

$$= a\sqrt{2}$$

$$AX = \sqrt{(a-0)^2 + (2a-a)^2}$$

$$= \sqrt{a^2 + a^2}$$

$$= \sqrt{2a^2}$$

$$= a\sqrt{2}$$

1. $\triangle ABC$ IS AN ISOSCELES
RIGHT TRIANGLE

2. $\overline{AB} \cong \overline{BC}$

3. X IS MIDPT OF \overline{AC}

4. $\overline{AX} \cong \overline{XC}$

5. Pt X IS AT (a, a)

6. $BX = a\sqrt{2}$

7. $AX = a\sqrt{2}$

8. $\triangle AXB$ IS ISOSCELES \triangle

1 GIVEN

2. GIVEN

3. GIVEN

4. DEF OF MIDPT

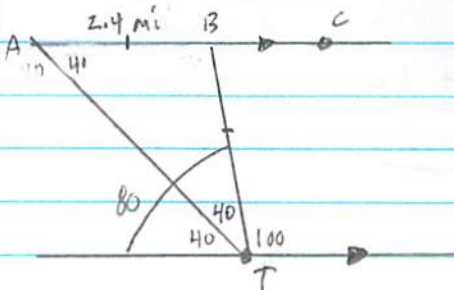
5. MIDPT FORMULA

6. DISTANCE FORMULA

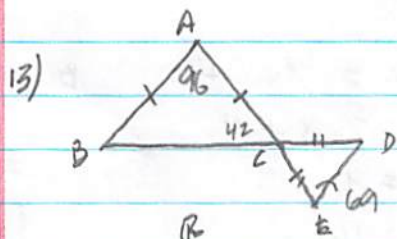
7. DISTANCE FORMULA

8. DEF OF ISOSCELES \triangle

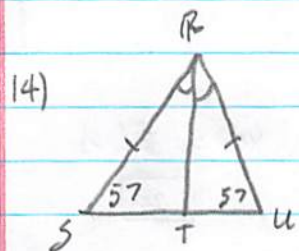
12)



$$BT = 2.4 \text{ mi.}$$

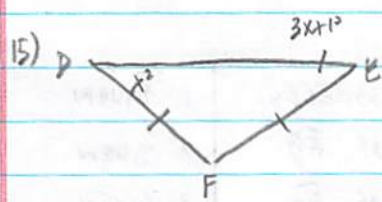


$$\boxed{m\angle E = 69}$$



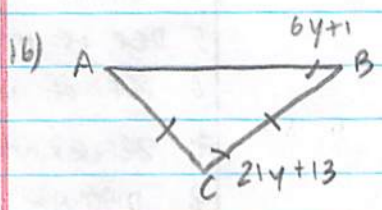
$$\boxed{m\angle TRU = 33}$$

$$m\angle SRU = 66$$



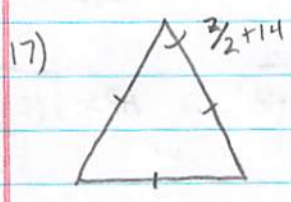
$$\begin{aligned} x^2 &= 3x+10 \\ x^2-3x-10 &= 0 \\ (x-5)(x+2) &= 0 \\ x=5 \quad x &= -2 \end{aligned}$$

$m\angle F$	$180 - 2(5^2)$	$180 - 2(3(-2)+10)$
	$180 - 2(25)$	$180 - 2(-6+10)$
	$180 - 50$	$180 - 2(4)$
	$\boxed{130}$	$180 - 8$
		$\boxed{172}$

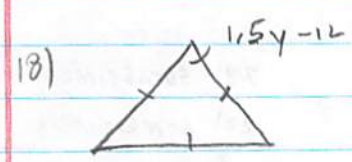


$$\begin{aligned} 21y+13 + 2(6y+1) &= 180 \\ 21y+13 + 12y+2 &= 180 \\ 33y+15 &= 180 \\ 33y &= 165 \\ y &= 5 \end{aligned}$$

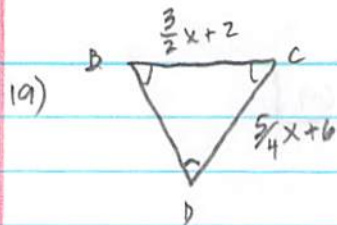
$$\begin{aligned} m\angle A &= 6(5)+1 \\ &= 30+1 \\ &= \boxed{31} \end{aligned}$$



$$\begin{aligned} \frac{z}{2} + 14 &= 90 \\ \frac{z}{2} &= 76 \\ \boxed{z} &= 152 \end{aligned}$$



$$\begin{aligned} 1.5y - 12 &= 60 \\ 1.5y &= 72 \\ \boxed{y} &= 48 \end{aligned}$$



$$\frac{3}{2}x + 2 = \frac{5}{4}x + 6$$

$$BC = \frac{3}{2}(16) + 2$$

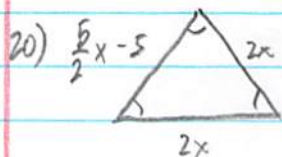
$$\frac{3}{4}x = \frac{5}{4}x + 4$$

$$= 24 + 2$$

$$\frac{1}{4}x = 4$$

$$x = 16$$

$$= 26$$



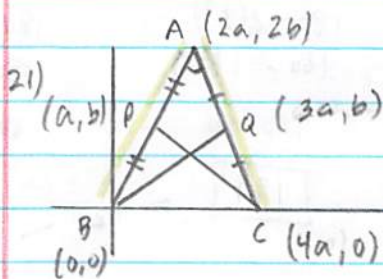
$$\frac{5}{2}x - 5 = \frac{4x}{2}$$

$$xz = 2(10)$$

$$\frac{x}{2} = 5$$

$$20$$

$$x = 10$$



PROVE: $\overline{PC} \cong \overline{QB}$

$$Q = \frac{2a+4a}{2}, \frac{2b+0}{2}$$

$$(3a, b)$$

$$P = \frac{2+0}{2}, \frac{2b+0}{2}$$

$$(1, b)$$

1. $\triangle ABC$ IS ISOSCELES

2. P IS MIDPT OF \overline{AB}

3. Q IS MIDPT OF \overline{AC}

4. $\overline{AB} \cong \overline{AC}$

5. $\overline{AQ} \cong \overline{QC}$

6. $\overline{AP} \cong \overline{PB}$

7. $\angle A \cong \angle A$

8. $AQ = AP$

9. $\overline{AQ} \cong \overline{AP}$

10. $\triangle ABQ \cong \triangle ACP$

11. $\overline{PC} \cong \overline{QB}$

1. GIVEN

2. GIVEN

3. GIVEN

4. GIVEN

5. DEF OF MIDPT

6. DEF OF MIDPT

7. REFLEXIVE

8. DISTANCE FORMULA

9. DEF OF \cong SEGMENTS

10. SAS

11. CPCTC

$$AQ = \sqrt{(3a-2a)^2 + (2b-b)^2}$$

$$= \sqrt{a^2 + b^2}$$

$$AP = \sqrt{(2a-a)^2 + (2b-b)^2}$$

$$= \sqrt{a^2 + b^2}$$

$$PC = \sqrt{(4a-a)^2 + (b-0)^2}$$

$$= \sqrt{(3a)^2 + b^2}$$

$$= \sqrt{9a^2 + b^2}$$

$$QB = \sqrt{(3a-0)^2 + (b-0)^2}$$

$$= \sqrt{(3a)^2 + b^2}$$

$$= \sqrt{9a^2 + b^2}$$

22) SOMETIMES

23) SOMETIMES

24) SOMETIMES

25) NEVER