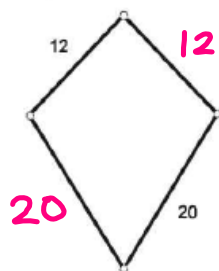


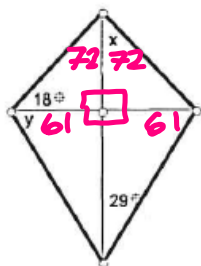
Kites & Trapezoids

1. Kite



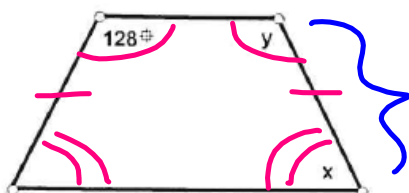
$$\text{Perimeter} = 64$$

2. Kite



$$x = \underline{72}, y = \underline{61}$$

3. Isosceles Trapezoid

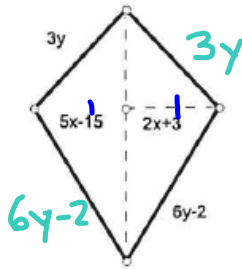


$$x = \underline{52}, y = \underline{128}$$

supp.

4. Kite's Perimeter=86 ft

$$x = \underline{6}, y = \underline{5}$$

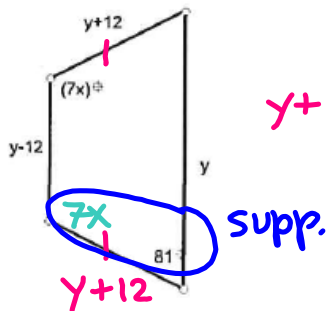


$$\begin{aligned} 5x - 15 &= 2x + 3 \\ 3x &= 18 \\ x &= 6 \end{aligned}$$

$$\begin{aligned} 2(3y) + 2(6y - 2) &= 86 \\ 6y + 12y - 4 &= 86 \\ 18y - 4 &= 86 \\ 18y &= 90 \\ y &= 5 \end{aligned}$$

5. Isosceles Trapezoid's Perimeter=164 cm

$$x = \underline{\frac{99}{7}}, y = \underline{38}$$



$$y + (y + 12) + (y + 12) + (y - 12) = 164$$

$$4y + 12 = 164$$

$$4y = 152$$

$$y = 38$$

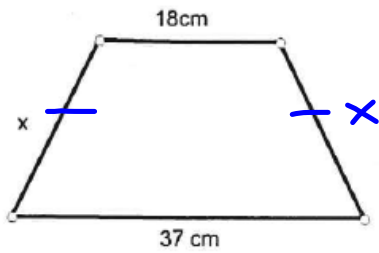
$$7x + 81 = 180$$

$$7x = 99$$

$$x = \frac{99}{7}$$

6. Isosceles Trapezoid's Perimeter=85 cm

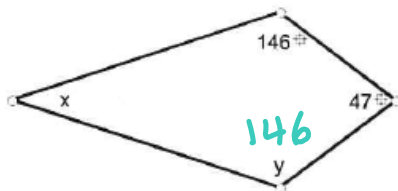
$$x = \underline{15}$$



$$\begin{aligned} 55 + 2x &= 85 \\ 2x &= 30 \\ x &= 15 \end{aligned}$$

7. Kite

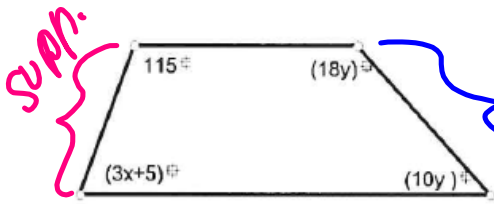
$$x = \underline{21}, y = \underline{146}$$



$$\begin{aligned} 47 + 292 + x &= 360 \\ 339 + x &= 360 \\ x &= 21 \end{aligned}$$

8. Trapezoid

$$x = 20, y = \frac{45}{7}$$



supp.

$$28y = 180$$

$$y = \frac{180}{28}$$

$$y = \frac{45}{7}$$

$$\begin{array}{r} 6.4 \\ 28 \overline{) 180.00} \\ \underline{168} \\ 120 \\ \underline{112} \\ 80 \end{array}$$

$$115 + (3x + 5) = 180$$

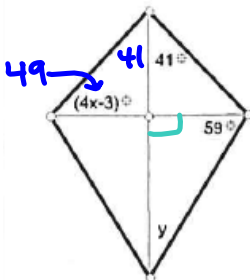
$$3x + 120 = 180$$

$$3x = 60$$

$$x = 20$$

9. Kite

$$x = 13, y = 31$$



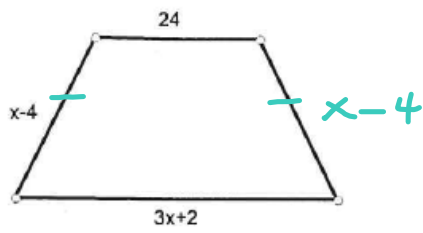
$$4x - 3 = 49$$

$$4x = 52$$

$$x = 13$$

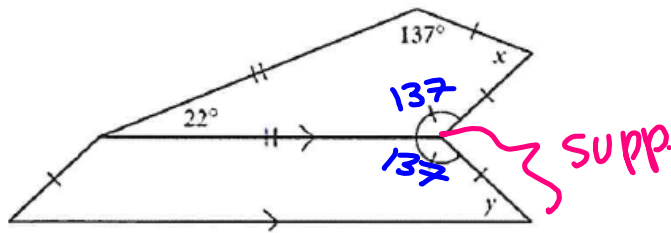
10. Isosceles Trapezoid's Perimeter=88 ft

$x = \underline{14}$



$$\begin{aligned}
 2(x-4) + 24 + (3x+2) &= 88 \\
 2x - 8 + 24 + 3x + 2 &= 88 \\
 5x + 18 &= 88 \\
 5x &= 70 \\
 x &= 14
 \end{aligned}$$

11. $x = \underline{64}, y = \underline{43}$

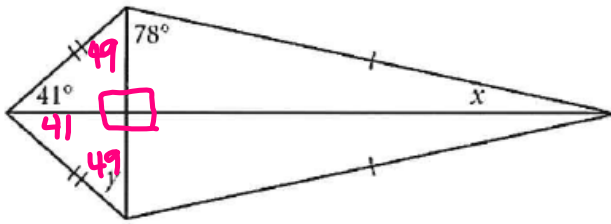


$$\begin{aligned}
 137 + y &= 180 \\
 y &= 43
 \end{aligned}$$

$$\begin{array}{r}
 1 \\
 137 \\
 137 \\
 22 \\
 \hline
 296
 \end{array}$$

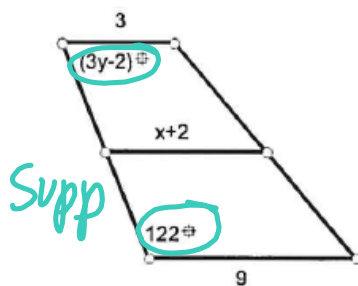
$$\begin{array}{r}
 360 \\
 - 296 \\
 \hline
 64
 \end{array}$$

12. $x = \underline{12}$, $y = \underline{49}$



$$90 + 78 + x = 180$$

13. Trapezoid with Midsegment



$$\begin{array}{l} x = \underline{4} \\ y = \underline{20} \end{array}$$

$$\frac{3+9}{2} = x+2$$

$$6 = x+2$$

$$4 = x$$

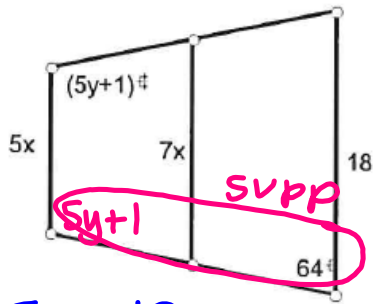
$$(3y-2) + 122 = 180$$

$$3y + 120 = 180$$

$$3y = 60$$

$$y = 20$$

14. ISOSCELES TRAPEZOID with Midsegment



$x = \underline{2}$ $y = \underline{23}$

$$(5y+1) + 64 = 180$$

$$5y + 65 = 180$$

$$5y = 115$$

$$y = 23$$

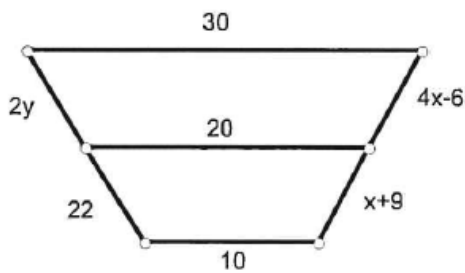
$$2 \cdot \frac{5x+18}{2} = 7x \cdot 2$$

$$5x + 18 = 14x$$

$$18 = 9x$$

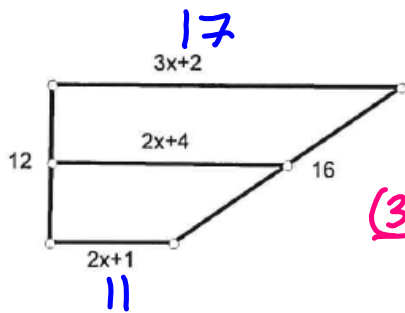
$$2 = x$$

15. 10. Trapezoid with Midsegment



$x = \underline{\hspace{2cm}}$ $y = \underline{\hspace{2cm}}$
--

16. Trapezoid with Midsegment



$x = \underline{5}$ Perimeter = <u>56</u>
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$$\frac{(3x+2) + (2x+1)}{2} = 2x+4$$

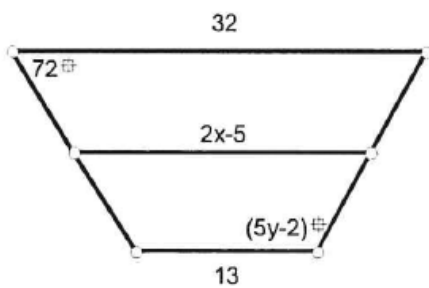
$$2 \cdot \frac{5x+3}{2} = (2x+4) \cdot 2$$

$$5x+3 = 4x+8$$

$$x = 5$$

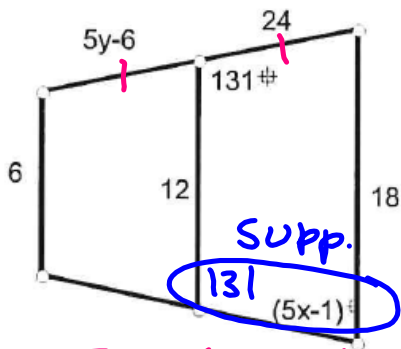
12
 17
 11
 16

17. Isosceles Trapezoid with Midsegment



$x = \underline{\hspace{2cm}}$ $y = \underline{\hspace{2cm}}$
--

18. Isosceles Trapezoid with Midsegment



$$\begin{aligned} 5y - 6 &= 24 \\ 5y &= 30 \\ y &= 6 \end{aligned}$$

$$\begin{aligned} x &= \underline{10} \\ y &= \underline{6} \end{aligned}$$

$$131 + (5x - 1) = 180$$

$$130 + 5x = 180$$

$$5x = 50$$

$$x = 10$$