

P.I. G.G.40: Investigate, justify, and apply theorems about trapezoids (including isosceles trapezoids) involving their angles, sides, medians, and diagonals

1. In isosceles trapezoid $JKLM$, leg $JK = 3x + 6$, base $KL = 9x - 3$, and leg $LM = 7x - 9$. Find the value of x .

[A] $\frac{3}{2}$ [B] $\frac{15}{4}$ [C] $\frac{3}{4}$ [D] -3

2. In isosceles trapezoid $JKLM$, leg $JK = 5x + 4$, base $KL = 9x + 8$, and leg $LM = 2x + 6$. Find the value of x .

[A] -1 [B] $-\frac{2}{7}$ [C] $\frac{10}{3}$ [D] $\frac{2}{3}$

3. In isosceles trapezoid $JKLM$, leg $JK = 7x - 9$, base $KL = 5x + 3$, and leg $LM = 2x + 2$. Find the value of x .

[A] $\frac{11}{5}$ [B] $-\frac{7}{5}$ [C] $-\frac{1}{3}$ [D] 6

4. In isosceles trapezoid $JKLM$, leg $JK = 5x - 10$, base $KL = 6x + 2$, and leg $LM = 2x + 8$. Find the value of x .

[A] $-\frac{2}{3}$ [B] $\frac{3}{2}$ [C] 6 [D] -12

Geometry Practice: G.G.40 #2

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[1] B

[2] D

[3] A

[4] C