# [06-09-08-T10-Problems]

*Solving compound inequalities*

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■ **Answer the following using interval notation.**
**A graph is <u>not</u> required, but may be helpful to you.**

■ **Solve the following.**

[1] $5 < 9 - 2x < 12$

[2] $-5 \leq 2x - 1 < 10$

[3] $2x < 5x - 1 < 11$

[4] $2x + 1 < 7 \vee 5x - 2 > 9$

[5] $2x + 1 < 7 \vee 5x - 2 < 9$

[6] $x + 3 < 7 \wedge 2x - 2 < 13$

[7] $-10 < \frac{2x+1}{3} < 0$

[8] $x - 13 \leq 7 \wedge x - 5 \geq 15$

[9] $x - 3 \leq 7 \wedge 3x > 30$

[10] $x + 3 < 7 \wedge x + 3 < 5$

# [06-09-08-T10-Answers]

*Solving compound inequalities*

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[1] $(-\frac{3}{2}, 2)$

[2] $[-2, \frac{11}{2})$

[3] $(\frac{1}{3}, \frac{12}{5})$

[4] $\mathbb{R}$ In interval notation $(-\infty, \infty +)$

[5] $(-\infty, 3)$

[6] $(-\infty, 4)$

[7] $(-\frac{31}{2}, -\frac{1}{2})$

[8] 20 In Interval notation [20, 20]

[9] $\phi$

[10] $(-\infty, 2)$