

Show all necessary steps Clearly, Neatly, and Systematically to receive full credit. Any incorrect statement will be penalized.

1. Solve: $7[2 - (3 + 4x)] - 2x = -9 + 2(1 - 15x)$.

2. Perform indicated operations: $\frac{-3\left(\frac{-5 - (-9)}{-2 \cdot 3 - 1}\right) - \sqrt{(-5)^2 - 3^2}}{|-9 - (-7)| - |-5 - (-8)|}$.

3. Solve: $\frac{3}{4}(x-2) - \frac{1}{5}(x-8) > -\frac{1}{2}$. Write the solution set in interval notation and graph.

4. Solve: $13|14 - 15x| - 16 > 10$. Write the solution set in interval notation.

5. Evaluate: $\frac{7y-5x}{2w}$ for $w=4$, $x=-\frac{3}{4}$, $y=\frac{1}{2}$.

6. Solve: $-\frac{11}{13}x > -22$ or $3x + 2 \geq -7$. Write the solution set in interval notation and set-builder notation.

7. Solve: $a = \frac{a+b+c}{d}$ for a .

8. Simplify: $0.3u - 1.1[3v - (v - 1.1u)] + 2v$.

9. Solve: $\left| \frac{2}{3}x - 2 \right| = \left| \frac{1}{3}x + 3 \right|$.

10. Solve: $\frac{4x+1}{3} - \frac{x-3}{6} = \frac{x+5}{6}$.

11. Solve: $\frac{1}{5} \left| \frac{2}{3}x + \frac{1}{6} \right| + \frac{5}{2} < \frac{1}{2}$.

12. To start training for a triathlon, an athlete runs 8 times longer than she swims, and cycles 45 miles longer than she runs. If she covers a overall distance of 70.5 miles, find the length of each part of her workout.
(*Make sure to show in 3 steps format*)