

EXTRA PRACTICE — Exercises

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Unit II – First Degree Relations with One Placeholder Part B – Complications on Equations and Inequalities Lesson 4 – Combinations

Find the solution set for each of the following relations by first simplifying any complications.

1. $12 - (7x - 11) = 3(5 - 3x)$

2. $-6(3 - 3m) = -9(2m - 30)$

3. $7(3x + 6) \leq 11 - (x + 2)$

4. $3(4x + 1) \geq 23 + 2x$

5. $4(2x + 8) = (3x - 2)5$

6. $3(2y - 5) - (7y - 6) = -10$

7. $3(2.4x - 1.2) - (5x + 4) = 7.2 - 2(x - 1)$

8. $\frac{2}{3}[2 - (3 - m)] \leq \frac{1}{2}(m - 3)$

9. $8y - (5 - y) = 6 + 2(6y - 4)$

10. $(8x - 3)2 = 3(6x + 5)$

11. $12 - 5a \leq 2(a - 8)$

12. $\frac{1}{8}(16y + 8) - 17 < \frac{1}{4}(8y - 16)$

13. $t(0.09)4 + t(0.11)4 = 1,200$

14. $2(3c + 19) - 9c = 7 - 3(11 - 3c)$

15. $\frac{2}{3}\left(\frac{7}{8} + 4x\right) - \frac{5}{8} \leq \frac{3}{8}$

16. $\frac{5}{6}(18 - 12y) = 14 + \frac{2}{3}(12y + 15)$

17. $3(2p + 11) - p = 7 - 2(12 - 5p)$

18. $-40x + 45 > 3[7 - (7x - 4)]$

19. $3(4x - 6) - (2x + 7) < 10 - 5(4 - 3x)$

20. $\frac{3}{5}(10x - 15) + \frac{5}{4}(16x + 24) = 86$

EXTRA PRACTICE — Answer Key

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Find the solution set for each of the following relations by first simplifying any complications.

1. $S = \{-4\}$

2. $S = \{8\}$

3. $S = \{x \mid x \leq \frac{-3}{2}\}$

4. $S = \{x \mid x \geq 2\}$

5. $S = \{6\}$

6. $S = \{1\}$

7. $S = \{4\}$

8. $S = \{m \mid m \leq -5\}$

9. $S = \{-1\}$

10. $S = \{\frac{-21}{2}\}$

11. $S = \{a \mid a \geq 4\}$

12. $S = \{\text{Any Real Number}\}$

13. $S = \{1,500\}$

14. $S = \{\frac{16}{3}\}$

15. $S = \{x \mid x \leq \frac{5}{32}\}$

16. $S = \{\frac{-1}{2}\}$

17. $S = \{10\}$

18. $S = \{x \mid x < \frac{12}{19}\}$

19. $S = \{x \mid x > -3\}$

20. $S = \{\frac{65}{26}\}$