Routine Linear Solving Practice #2

1. $11x - 9 = 2$

2. $10 - 8x = 4$

3. $6x + 4 = {}^-7$

4. $7 + 6x = 3$

5. ${}^-3 = 8x + 8$

6. $6x - 10 = 8$

7. $6 + 3x = 6$

8. $7x + 3 = 5$

9. $5 - 2x = {}^-2$

10. $5x + 7 = {}^-12$

11. $6 - 2x = {}^-10$

12. $9x + 10 = 11$

13. $7x - 4 = 2x - 6$

14. $6 - 5x = 9 - x$

15. $x + 5 = 10x + 9$

16. $2 - 8x = 10$

17. $6(x - 11) = 5$

18. $9 - 10x = 7$

19. $8x - 3 = 10$

20. $5x + 5 = 2x + 8$

Answers: Routine Linear Solving Practice #2

The middle steps shown are to help locate errors. Students should show more working than this.

1. $11x - 9 = 2$ $11x = 2 + 9$ $x = 11 \div 11$ $x = 1$

2. $10 - 8x = 4$ $-8x = 4 - 10$ $x = -6 \div -8$ $x = 0.75$ $= {}^3/_4$

3. $6x + 4 = {}^-7$ $6x = -7 - 4$ $x = -11 \div 6$ $x = {}^-1.833$ $= {}^{-11}/_6$

4. $7 + 6x = 3$ $6x = 3 - 7$ $x = -4 \div 6$ $x = {}^-0.667$ $= {}^{-2}/_3$

5. ${}^-3 = 8x + 8$ $-3 - 8 = 8x$ $-11 \div 8 = x$ $x = {}^-1.375$ $= {}^{-11}/_8$

6. $6x - 10 = 8$ $6x = 8 + 10$ $x = 18 \div 6$ $x = 3$

7. $6 + 3x = 6$ $3x = 6 - 6$ $x = 0 \div 6$ $x = 0$

8. $7x + 3 = 5$ $7x = 5 - 3$ $x = 2 \div 7$ $x = 0.286$ $= {}^2/_7$

9. $5 - 2x = {}^-2$ $-2x = -2 - 5$ $x = -7 \div -2$ $x = 3.5$ $= {}^7/_2$

10. $5x + 7 = {}^-12$ $5x = -12 - 7$ $x = -19 \div 5$ $x = {}^-3.8$ $= {}^{-19}/_5$

11. $6 - 2x = -10$ $-2x = -10 - 6$ $x = -16 \div -2$ $x = 8$

12. $9x + 10 = 11$ $9x = 11 - 10$ $x = 1 \div 9$ $x = 0.111$ $= {}^1/_9$

13. $7x - 4 = 2x - 6$ $7x - 2x = -6 + 4$ $5x = -2$ $x = {}^-0.4$ $= {}^{-2}/_5$

14. $6 - 5x = 9 - x$ $6 - 9 = -x + 5x$ $-3 = 4x$ $x = {}^-0.75$ $= {}^{-3}/_4$

15. $x + 5 = 10x + 9$ $5 - 9 = 10x - x$ $-4 = 9x$ $x = {}^-0.444$ $= {}^{-4}/_9$

16. $2 - 8x = 10$ $-8x = 10 - 2$ $x = 8 \div -8$ $x = {}^-1$

17. $6(x - 11) = 5$ $6x - 66 = 5$ $6x = 71$ $x = 11.833$ $= {}^{71}/_6$

18. $9 - 10x = 7$ $-10x = 7 - 9$ $x = -2 \div -10$ $x = 0.2$

19. $8x - 3 = 10$ $8x = 10 + 3$ $x = 13 \div 8$ $x = 1.625$ $= {}^{13}/_8$

20. $5x + 5 = 2x + 8$ $5x - 2x = 8 - 5$ $3x = 3$ $x = 1$

It is preferable to leave answers in improper fraction form, provided it is simplified and any negative sign is on the numerator. Decimal form is **not** better.