

Routine Linear Solving Practice #1

1. $4x + 1 = 5$

2. $5x + 8 = -7$

3. $10x - 10 = 12$

4. $10x - 2 = 2$

5. $6 = 1 + 8x$

6. $6x - 12 = -11$

7. $2x + 9 = -5$

8. $12 + 3x = 8$

9. $-9 = 3x + 6$

10. $9x + 9 = 6$

11. $3x + 8 = 7x + 11$

12. $6x - 1 = 5x - 5$

13. $4(x + 9) = -1$

14. $7 - 5x = 4$

15. $4 - 11x = 9$

16. $5(2x + 6) = 10$

17. $11x - 8 = x + 10$

18. $6x - 4 = 8x - 2$

19. $5(7 - x) = 7$

20. $4(2 - x) = 3x$

Answers: Routine Linear Solving Practice #1

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

1.	$4x + 1 = 5$	$4x = 5 - 1$	$x = 4 \div 4$	$x = 1$	
2.	$5x + 8 = -7$	$5x = -7 - 8$	$x = -15 \div 5$	$x = -3$	
3.	$10x - 10 = 12$	$10x = 12 + 10$	$x = 22 \div 10$	$x = 2.2$	$= \frac{11}{5}$
4.	$10x - 2 = 2$	$10x = 2 + 2$	$x = 4 \div 10$	$x = 0.4$	$= \frac{2}{5}$
5.	$6 = 1 + 8x$	$6 - 1 = 8x$	$5 \div 8 = x$	$x = 0.625$	$= \frac{5}{8}$
6.	$6x - 12 = -11$	$6x = -11 + 12$	$x = 1 \div 6$	$x = 0.167$	$= \frac{1}{6}$
7.	$2x + 9 = -5$	$2x = -5 - 9$	$x = -14 \div 2$	$x = -7$	
8.	$12 + 3x = 8$	$3x = 8 - 12$	$x = -4 \div 3$	$x = -1.333$	$= -\frac{4}{3}$
9.	$-9 = 3x + 6$	$-9 - 6 = 3x$	$-15 \div 3 = x$	$x = -5$	
10.	$9x + 9 = 6$	$9x = 6 - 9$	$x = -3 \div 9$	$x = -0.333$	$= -\frac{1}{3}$
11.	$3x + 8 = 7x + 11$	$8 - 11 = 7x - 3x$	$-3 = 4x$	$x = -0.75$	$= -\frac{3}{4}$
12.	$6x - 1 = 5x - 5$	$6x - 5x = -5 + 1$		$x = -4$	
13.	$4(x + 9) = -1$	$4x + 36 = -1$	$4x = -1 - 36$	$x = -9.25$	$= -\frac{37}{4}$
14.	$7 - 5x = 4$	$-5x = 4 - 7$	$x = -3 \div -5$	$x = 0.6$	$= \frac{3}{5}$
15.	$4 - 11x = 9$	$-11x = 9 - 4$	$x = 5 \div -11$	$x = -0.455$	$= -\frac{5}{11}$
16.	$5(2x + 6) = 10$	$10x + 30 = 10$	$10x = 10 - 30$	$x = -2$	
17.	$11x - 8 = x + 10$	$11x - x = 10 + 8$	$10x = 18$	$x = 1.8$	$= \frac{9}{5}$
18.	$6x - 4 = 8x - 2$	$-4 + 2 = 8x - 6x$	$-2 = 2x$	$x = -1$	
19.	$5(7 - x) = 7$	$35 - 5x = 7$	$-5x = 7 - 35$	$x = 5.6$	$= \frac{28}{5}$
20.	$4(2 - x) = 3x$	$8 - 4x = 3x$	$8 = 3x + 4x$	$x = 1.143$	$= \frac{8}{7}$

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.