

Pre Calculus 11
HW 7.5 Abs Value

Name _____

Date _____

1. Solve: $|3x - 5| + |x + 3| = 12$

2. Solve: $|2x - 3| + |x + 7| = 11$

3. Solve: $|x| + |x - 1| = 4$

4. Solve: $|x| + |x - 1| = 9$

5. Solve: $|3x - 2| = |2x|$

6. Solve: $|2x - 5| = |3x|$

7. Solve: $|5x - 3| = |x + 1|$

8. Solve: $|7x - 5| = |x + 7|$

9. $|4c + 2| = |c + 3|$

10. $|u - 6| = |2 - 3u|$

11. $|3 - g| = |1 - 2g|$

12. $|5 - 3w| = |2w + 10|$

13. Find all real numbers n which satisfy:
 $|n + 2| = |n - 4|$.

14. Solve for all real values of y : $|3y + 7| = |2y - 1|$

15. Find the product of all real numbers n which satisfy $|n^2 - 9n + 20| = |16 - n^2|$.

16. What is the sum of all values of x for which $|x - 3| + |3 - x| - 1 = 3$?

17. What is the smallest value of x such that $|5x - 1| = |3x + 2|$? Express your answer as a common fraction.

18. How many integers are solutions of $3 \leq |n - 1| < 8$?

Answer List

- | | | |
|---------------------|----------------------------|------------------------|
| 1. $-2, 3.5$ | 2. $-1, \frac{7}{3}$ | 3. $-\frac{3}{2}, 2.5$ |
| 4. $-4, 5$ | 5. $\frac{2}{5}, 2$ | 6. $-5, 1$ |
| 7. $\frac{1}{3}, 1$ | 8. $-\frac{1}{4}, 2$ | 9. $-1, \frac{1}{3}$ |
| 10. $-2, 2$ | 11. $-2, \frac{4}{3}$ | 12. $-1, 15$ |
| 13. 1 | 14. $\{-\frac{6}{5}, -8\}$ | 15. 2 |
| 16. 6 | 17. $-\frac{1}{8}$ | 18. 10 (integers) |

Catalog List

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|----------------|----------------|----------------|
| 1. CM1 LA 51 | 2. CM1 LA 52 | 3. CM1 LA 53 |
| 4. CM1 LA 54 | 5. CM1 LA 55 | 6. CM1 LA 56 |
| 7. CM1 LA 57 | 8. CM1 LA 58 | 9. ALG OD 149 |
| 10. ALG OD 150 | 11. ALG OD 151 | 12. ALG OD 152 |
| 13. MCC BC 41 | 14. MCC BC 119 | 15. MCC BC 222 |
| 16. MCC BC 288 | 17. MCC BC 306 | 18. MCC BD 69 |