Algebra 1 Chapter 2 Review Fall 2015

Find the EXACT solution to each equation.

1. $M + 46.9 = -81.7$
2. $-x = 41.37$
3. $38 = -2C$
4. $\frac{A}{2} = 14$
5. $\frac{5}{9}W = 20$
6. $T - 4.3 = -16.5$
7. $66.5 - 3G = -16$
8. $5 - \frac{K}{6} = 17$
9. $8 + \frac{3}{11}x = 23$
10. $8 - x = 42$
11. $7.8T + 14.5 = -32.3$
12. $8H - 2 + 2H + 13 = 41$
13. $2(3x - 9) + 12 = -42$
14. $5 - 4(2x - 6) + 4x - 15 = 2$
15. $5x + 17 = 32 + 3x$
16. $12x = 14x - 22$
17. $8 + 2(x - 4) = 66 - 7x + 19 - 8x$
18. $\frac{4}{3}x + \frac{13}{3} = \frac{5}{3}$
19. $\frac{11}{7}x + \frac{12}{21} = \frac{26}{7}$
20. $\frac{2}{8}x + \frac{5}{6} = \frac{1}{3}$
21. $\frac{2m + 11}{3} - 5 = 18$
22. Solve for T $A = TV$
23. Solve for K $M = K - E$
24. Solve for M $GH + RM = K$
25. Solve for A $\frac{A}{W} + N = Q$
26. Solve for Y $R = \frac{Y - H}{C}$
27. Solve for B $A(B - G) + Z = R$
28. Solve for N $\frac{MN + P}{E} - K = X$
29. Solve. $5x + 3 - 2x - 8 = 3(x + 6) - 1$
30. Solve. $4Q - 2(Q + 3) - 1 = Q - 3 + Q - 4$

31. Four consecutive integers have a sum of 1490. Write and solve an equation to find these numbers.

32. Five consecutive multiples of four have a sum of 260. Write and solve an equation to find these numbers.

33. Four consecutive odd numbers have a sum of 776. Write and solve an equation to find these numbers.

34. The perimeter of a rectangle is 88 inches. The width is 8 inches more than three times the length. Write and solve an equation to find the dimensions of the rectangle.

35. You make a round trip from home to your grandparents house. The trip to their house takes 8 hours and you travel 12 mph slower than the return trip, which takes 6 hours. Write and solve an equation to find the speed of both trips.

36. Two bikers leave a parking lot following the same route. The first biker travels 12 mph. The second one travels 16 mph and leaves two hours later than the first. Write and solve an equation to find the traveling time for each biker when the second biker catches the first one.

37. Two boats leave the same dock at the same time traveling in opposite directions. One boat travels East 8 mph faster than the other boat which travels West. After 3 hours they are 156 miles apart. Write and solve an equation to find the speed of each boat.

38. Three integers have a sum of 242. The second integer is two more than three times the first integer. The third integer is eight less than four times the second integer. Write and solve and equation to find these three integers.

39. You make a round trip on the weekend between home and your cottage. On the way to your cottage you drove 60 mph. On the return home you could only drive 50 mph. Total travel time is 8.8 hours. Write and solve an equation to find the time you drove each way.

Algebra 1 Chapter 2 Review Fall 2015 Answers

1. $M = -128.6$ 2. $x = -41.37$ 3. $C = -19$ 4. $A = 28$
5. $W = 36$ 6. $T = -12.2$ 7. $G = 27.5$ 8. $K = -72$
9. $x = 55$ 10. $x = -34$ 11. $T = -6.0$ 12. $H = 3$
13. $x = -6$ 14. $x = 3$ 15. $x = \frac{15}{2}$ 16. $x = 11$
17. $x = 5$ 18. $x = -2$ 19. $x = 2$ 20. $x = -2$
21. $m = 29$

For 22 to 28 different looking answers are possible. Ask if you are not sure that your answer is okay.

22. $T = \frac{A}{V}$ 23. $K = M + E$ 24. $M = \frac{K-GH}{R}$
25. $A = W(Q - N)$ 26. $Y = RC + H$ 27. $B = \frac{R-Z}{A} + G$ or $\frac{R-Z+GA}{A}$
28. $N = \frac{E(X+K)-P}{M}$

29. No Solution 30. All real numbers

31. EQ: $n+n+1+n+2+n+3 = 1490$ #'s are: 371,372,373,374
32. EQ: $x+x+4+x+8+x+12+x+16 = 260$ #'s are: 44,48,52,56,60
33. EQ: $x+x+2+x+4+x+6 = 776$ #'s are: 191,193,195,197

34. Dimensions are 9 inches x 35 inches ($Width = 35$ and $Length = 9$)

35. EQ: $8(r-12) = 6r$ Speed to grandparents=36mph Return speed=48mph

36. EQ: $12t = 16(t-2)$ Time of first biker=8hrs Time of second biker=6hrs

37. EQ: $3(r+8)+3r = 156$ Speed of East boat=30mph Speed of West boat=22mph

38. EQ: $x+3x+2+4(3x+2)-8 = 242$. Integers are 15, 47, 180

39. EQ: $60t = 50(8.8-t)$ Time from home to cottage is 4 hrs. Time from cottage back home is 4.8 hours