

Review for Exam 2

MA 098 ZNB

C C Moxley, UAB Department of Mathematics

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1) Solve or indicate that there are no solutions: $12 - 3(x + 1) = x - 11$.

2) How long (in hours) does it take Michelle to drive 1000 miles if she gets on the interstate at 5AM and drives with her cruise control set to 80mph? At what time will she arrive? (I do not advocate speeding.)

3) Solve for q : $5h = \frac{2p}{q}$.

4) Solve the equation $P = s + Qs + 1$ for s .

5) Solve or indicate that there are no solutions: $3x + 1 = -2 - 3x + 21$.

6) Solve: $7 - (x - 3) = 2x - 2$.

7) Solve or indicate that there are no solutions: $12x + 5 = 4(3x + 1)$.

8) How much of an alloy that is 10 percent aluminum must be mixed with 20 ounces of an alloy that is 40 percent aluminum to get an alloy that is 15 percent aluminum?

9) Graph the inequality on the number line: $-3 > w$.

10) Solve the equation for x : $x - 1 = 3$.

11) A 29-inch board is cut into three pieces. The first board is an inch shorter than twice the length of the second board. The third board is two inches longer than half the length of the second board. How long is each board?

12) Solve: $8z - 16 = 2(2z - 6)$.

13) Solve for x : $2x + 15 = 7$.

14) Translate into an equation and solve. Let x be the unknown number. 45 is 10 percent of what number?

15) Solve the equation: $-4.5 = 0.5x$.

16) Two times the sum of a number and 4 is greater than 12. Give all numbers that satisfy this inequality.

17) Ten is what percent of 4?

18) A sofa that usually sells for 1200 dollars is on sale for 10 percent off. Find the discount amount and sale price.

19) Three students have grades that are odd consecutive natural numbers. The sum of the three scores is 249. What are the three scores?

20) 60 percent of 50 is what number?