

MATHEMATICS 115 SAMPLE TEST CHAPTERS 2

INSTRUCTOR: ANNE SISWANTO; TOTAL POINTS: 100; TIME: 70 MINUTES

Direction: A scientific calculator can be used during the test. Show all work on the test paper for full credit.

Solve.

1) $7(k + 5) - (6k - 1) = -2$

1) _____

2) $3(-6x - 2) + 3(-1 + 5x) = 20 - 2x$

2) _____

3) $-2.3q + 1.8 = -3.7 - 1.2q$

3) _____

$$4) -6x + 4(-3x - 6) = -36 - 6x$$

4) _____

$$5) 0.8(5x + 15) = 2.8 - (x + 3)$$

5) _____

$$6) 0.9(5x + 15) = 2.6 - (x + 3)$$

6) _____

$$7) \frac{1}{4}(8x - 12) = \frac{1}{2}(6x - 4)$$

7) _____

Solve the equation for the indicated variable.

8) $A = \frac{1}{2}bh$; b

8) _____

9) $P = 2L + 2W$; L

9) _____

10) $A = py + dy$; y

10) _____

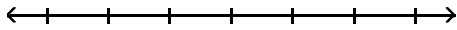
11) $c = \frac{6t + 8}{t}$; t

11) _____

Solve and graph. Write the solution set in set-builder and interval notation.

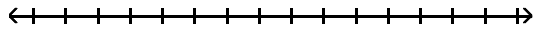
12) $6 + 12x - 12 \geq 11x + 4$

12) _____



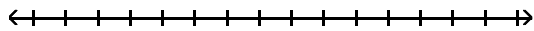
13) $0.6x + 19 + x > 2x + 22 - 0.5x$

13) _____

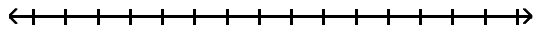


14) $0.6x + 16 + x > 2x + 22 - 0.5x$

14) _____

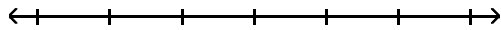


15) $\frac{x}{2} + 10 \leq 9$



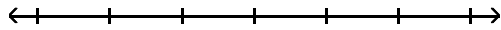
15) _____

16) $24x - 12 > 4(5x - 11)$



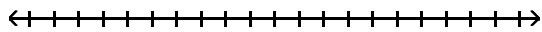
16) _____

17) $-6(6y - 9) < -42y + 30$



17) _____

18) $\frac{2}{3}(2x - 1) < 2$



18) _____

Use steps 1 – 5 to solve the Application Problem.

19) The parking lot at a grocery store has 52 cars in it. 50% of the cars are blue. How many cars are blue? 19) _____

20) A tax-exempt school group received a bill of \$240.75 for educational software. The bill incorrectly included sales tax of 7%. How much should the school group pay? 20) _____

Solve using the five-step problem-solving process.

21) The sum of twice a number and 4 less than the number is the same as the difference between -32 and the number. What is the number? 21) _____

22) The sum of two consecutive integers is -247 . Find the larger integer.

22) _____

23) The second angle of a triangle is 4 times as large as the first. The third angle is 80° more than the sum of the other two angles. Find the measure of the second angle.

23) _____

24) A square plywood platform has a perimeter which is 9 times the length of a side, decreased by 15. Find the length of a side.

24) _____

Answer Key

Testname: M115T2S_BITTINGER

1) - 38

2) -29

3) 5

4) 1

5) $-\frac{61}{25}$

6) $-\frac{139}{55}$

7) -1

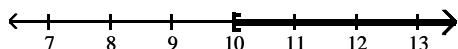
8) $b = \frac{2A}{h}$

9) $L = \frac{P - 2W}{2}$

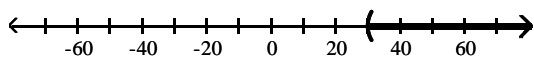
10) $y = \frac{A}{p + d}$

11) $t = \frac{8}{c - 6}$ or $t = \frac{-8}{-c + 6}$

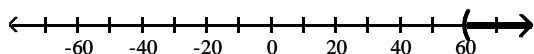
12) $\{x | x \geq 10\}; [10, \infty)$



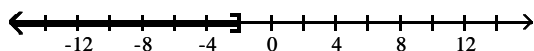
13) $\{x | x > 30\}; (30, \infty)$



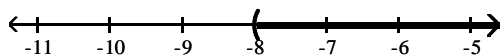
14) $\{x | x > 60\}; (60, \infty)$



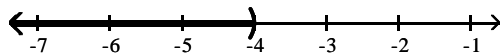
15) $\{x | x \leq -2\}; (-\infty, -2]$



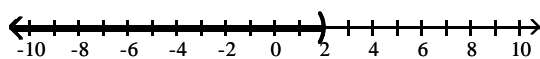
16) $\{x | x > -8\}; (-8, \infty)$



17) $\{y | y < -4\}; (-\infty, -4)$



18) $\{x | x < 2\}; (-\infty, 2)$



19) 26 cars

20) \$225.00

21) -7

22) - 123

23) 40 degrees

24) 3