

# ANSWERS to Sample Final Exam

## Math 90, Elementary Algebra

1.  $x^{12}y^{19}$

2.  $6x^3y^3\sqrt{14x}$

3.  $-3x^4y^2 + x^3y^3 + 4x^2y^4$

4.  $3x^2y^5z^3\sqrt{6x}$

5.  $\frac{4b+3}{2(b+6)}$

6.  $\frac{3}{10}$

7.  $x = \frac{C - By}{A}$

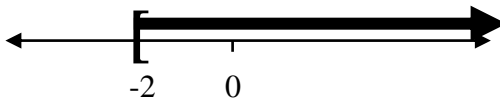
8.  $x = 3, -2$

9.  $a = \frac{5}{2}, -\frac{5}{2}$

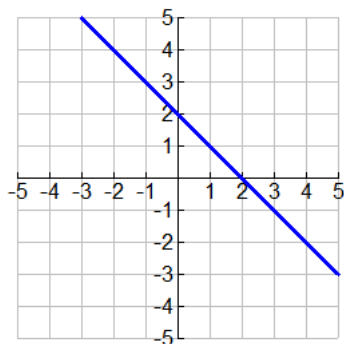
10.  $m = 4$

11.  $(4, -2)$

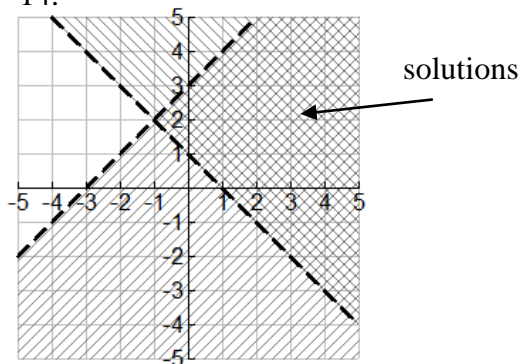
12.  $x \geq -2$



13.



14.



15. 6ft by 13 ft

16. 305 student tickets, 105 nonstudents tickets

17.  $1.23 \times 10^{-7}$  and  $4.56 \times 10^4$

18. (4, 0)

19.  $y = \frac{2}{3}x + \frac{8}{3}$

20.  $f(4) = 5$

21.  $f(2) = 3$ , Domain: [-3, 4], Range: [-1, 4]

22.  $(3y - 2)^2$

23.  $(a + 10b)(a + 2b)$