| NAME:  |  |  |  |  |         | WEEKLY REVIEW SHEET #2 |    |      |  |  |
|--|--|--|--|--|---------|------------------------|----|------|--|--|
| DATE:  |  |  |  |  | ALGEBRA |                        |    |      |  |  |
| 1 - 4Multiple Choice. (3 points each)1. $\sqrt{28a^3}$ simplifies to:a. $14a\sqrt{a}$ b. $2a\sqrt{7a}$ |  |  |  |  |         | $7a\sqrt{2a}$          | d. | 2a√7 |  |  |

- 2. Given the set of even integers, for which of the following operations does the closure property not apply?
  - a. Addition b. Multiplication
  - c. Division d. Subtraction
- 3. Which ordered pair is in the solution of the given system? *Show all work.*

$$y = -\frac{1}{2}x + 5$$
  

$$y = 3x - 2$$
  
(4, 2) b. (2, 4)  
(4, 3) d. (3, 4)

a.

C.

4. If 
$$f(x) = \frac{\sqrt{2x+3}}{6x-5}$$
 then  $f\left(\frac{1}{2}\right) = ?$   
a. 1 b.  $-2$   
c.  $-1$  d.  $-\frac{13}{3}$ 

- 5. Factor completely:  $3x^2 75$  (4 points)
- 6. What is the domain and range for the graph at right? *(4 points)*



4

## 7 – 8 Write the equation of the described line. (5 points each)

7. Passes through the points P(1,3) and Q(-2,-4)

8. Passes through the point A(6, -1) and is perpendicular to the line y = 3x - 1

9. Simplify:  $3m(2m+5)(2m-5) - 12m^3$ . Show all work. (4 points)

10. Solve for *x* algebraically:  $5x - 2(3x - 4) \le 4(x - 3) + 2x - 1$  (4 points)

If *x* is a number in the interval [0, 5], state all integers that satisfy the given inequality. Explain how you determined these values. *(2 points)*