Chapter 12.4 Homework

Factor each expression.

1. $6x - 24$

2. $3x + 36$

Determine the x-intercepts of each quadratic function in factored form.

7. $f(x) = (x - 2)(x - 8)$

8. $f(x) = (x + 1)(x - 6)$

9. $f(x) = 3(x + 4)(x - 2)$

10. $f(x) = 0.25(x - 1)(x - 12)$

11. $f(x) = 0.5(x + 15)(x + 5)$

12. $f(x) = 4(x - 1)(x - 9)$

Write a quadratic function in factored form with each set of given characteristics.

13. Write a quadratic function that represents a parabola that opens downward and has x-intercepts $(-2, 0)$ and $(5, 0)$.

14. Write a quadratic function that represents a parabola that opens downward and has x-intercepts $(2, 0)$ and $(14, 0)$.

Write the function in standard form.

$f(x)=3x(2-x)+9$

Determine if the table is Quad. or linear

x	y	First Differences	Second Differences
−1	1		
0	0		
1	3		
2	10		
3	21		

Graph the following table, then identify…

Max/Min:

Zeroes:

Y-Int:

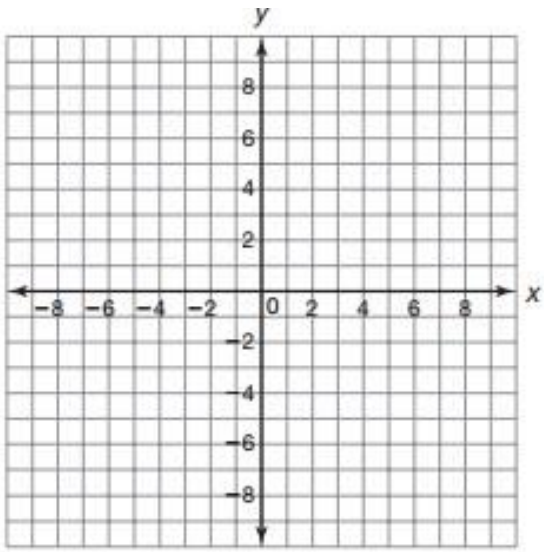
Domain:

Range:

Interval Increase:

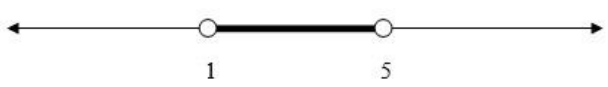
Interval Decrease:

x	y
−3	−9
0	0
3	3
6	0
9	−9



In each part, express the set in interval notation

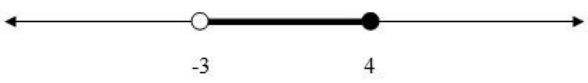
1.



2.

3.

4.



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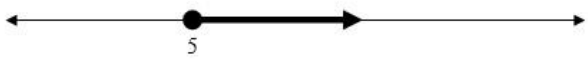

6.