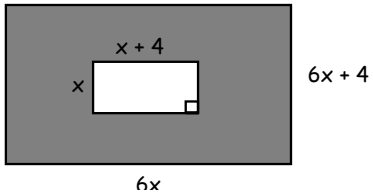
Name: _____ Algebra II

Date: _____ Period: _____ Ms. Ngo

Classwork: Checkpoint Practice Questions

1. Find the area of the shaded region.



2. Factor $x^2 - 20x + 64$.	3. Factor $x^4 - 20x^2 + 64$.
4. Factor $x^2 + 6x + 9$.	5. Factor $x^4 + 6x^2 + 9$.
6. Factor $z + z^{10}$	7. Factor $9x^2 - 4$
8. Factor $36x^2 - 25$	9. Factor completely. $x^2 + 14xy + 49y^2$

Name: _____ Algebra II

Date: _____ Period: _____ Ms. Ngo

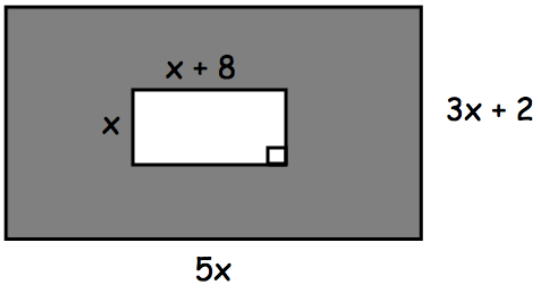
HW # ____: Checkpoint Practice Questions

Directions: Do the work on another sheet of paper.

1. Find the product of $3x^2 + 5x - 9$ and $x^2 - 4x + 6$.

2. The formula for the volume of a rectangular prism is V = BH, where B is the area of the base and h is the height of the prism. Find the volume of the prism if the height of the prism is x + 3, the width of the base is x + 8 and the width is x + 2.

3. Simplify $(3x^3 + 5x^2 - 9x) + (4x^3 + 12x^2 - 9)$.
4. Simplify $(-3x^3 + 5x^2 - 9x) - 5(4x^3 + 12x^2 - 4x)$.
5. Find the area of the shaded region given the following drawing.



6. Factor $x^4 - 13x^2 + 36$.
7. Factor $x^4 - 10x^2 + 25$.
8. Factor $x^4 + 6x^2 + 9$.
9. State the difference of cube formula.
10. State the sum of cubes formula.
11. Factor completely. $27x^3 - 1$
12. Factor completely. $8x^3 - 8$
13. Factor $y^9 + 1$ (Hint: Difference of cubes.)
14. Factor $y + y^{10}$ (Hint: Use # 13's answer.)
15. Factor $25x^2 - 9$
16. Factor $9x^2 - 16$
17. Factor completely. $x^2 + 6xy + 9y^2$
18. Factor completely. $x^2 + 10xy + 25y^2$

Name: _____ Algebra II

Date: _____ Period: _____ Ms. Ngo