## Factor:

1. $25 x^{2}+15 x$
2. What is the perimeter of the rectangle that has an area of $7 x+14$ ? (Factor/add sides)
3. $16 x^{2}-49 y^{2}$
4. $2 x^{3}-18 x$
5. $x^{2}-5 x+6$
6. $2 x^{2}+11 x+5$
7. $6 x^{2}+9 x-27$
8. $3 x^{3}-8 x^{2}+4 x$
9. Write a simplified expression for the perimeter of rectangle with an area of $3 x^{2}-2 x-5$.
10. 

The volume of a rectangular prism is: $10 x^{3}+42 x^{2}+8 x$
Find the length, width and height of the prism.
11. $x^{2}+P x+36=(x+6)^{2}$

What is the value of $\boldsymbol{P} ?$

## Given the graph at the right

| How does the graph open? | Up or Down |
| :--- | :--- |
| Does it have a Min or Max? | Min or Max |
| State the y-intercept |  |
| State the Axis of Symmetry |  |
| State the Vertex |  |
| State the Solutions |  |
| State the Domain |  |
| State the Range |  |

12. $f(x)=x^{2}+6 x+8$
13. $0=x^{2}-25$
14. $x^{2}-8 x=0$
15. $2 x^{2}-6 x+5=-3 x+4$
