

10.2 Worksheet

Date _____ Period _____

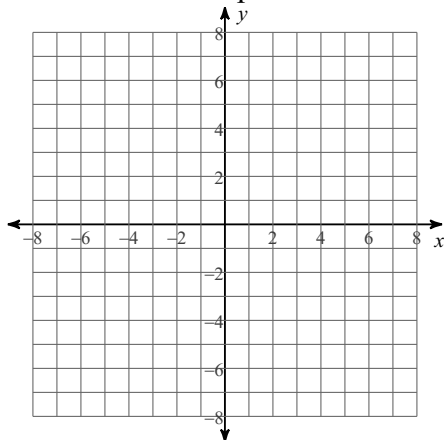
Factor each completely.

1) $n^2 - 2n - 80$

2) $k^2 + 9k + 8$

3) $2a^2 - 50$

4) $x^2 + 8x + 12$

5) Write a quadratic equation that will have a
MAXIMUM.6) Write a quadratic equation that will have a
MINIMUM.7) Sketch the graph of a quadratic equation
that has X-Intercepts at 2 and -4.

The quadratic function $y=x^2$ is transformed as described below. Write the equation of the function after each transformation.

8) up 2 units

9) down 4 units

10) right 6 units

11) reflected over the x-axis and shifted 3 units left

12) reflected over the x-axis and shifted 5 units up and 2 units left

Find the y intercepts for each of the equations below

13) $y = (x + 1)^2 - 4$

14) $y = 2(x - 3)^2 + 2$

15) $y = \frac{1}{3}(x + 1)^2 + 4$