LEVEL CURVES 2

For each function below, draw the level curves corresponding to the given values of z. Use the same set of axes for each particular function, and correctly label all *x*- and *y*-intercepts.

1. $z = |x| + |y|$ $\qquad\qquad$ $z = 1$

2. $z = \ln\left(x^2 + y^2\right)$ $\qquad\qquad$ $z = 1$

3. $z = x \cdot y$ $\qquad\qquad$ $z = -2, 0, 2$

4. $z = x^2 + y^2$ $\qquad\qquad$ $z = 1, 4, 7$

5. $z = -2x + y + 1$ $\qquad\qquad$ $z = -2, 0, 2$

6. $z = x^2$ $\qquad\qquad$ $z = 0, 1, 2$

7. $z = x^2 - y^2$ $\qquad\qquad$ $z = -2, 0, 2$