Disks or Shells? Decide if the following problems would be easier solved using the **disk** method or the **shell** method, or whether either method could be used. If your answer is "either," explain how to set the problem up each way.

Note. **RBB** stands for "The region bounded by ...".

1. RBB $y = 2x^2 - x^3, \quad y = 0$ about the y-axis

2. RBB $y = x^3, \quad y = x^2$ about the line $x = 7$

3. RBB $x = y^2 + 1, \quad x = 3y + 2$ about the line $x = -16$

4. RBB $y = \dfrac{1}{x}, \quad y = 2, \quad x = 1$ about the line $y = -3$

5. (**) RBB $\dfrac{3}{y^2 + 1}, \quad x = 1$ about the line $x = 10$

6. (**) RBB $y = \dfrac{x}{3}, \quad x = \sin y, \quad y = \pi$ about the line $y = -9$

7. (**) RBB $y = 2x, \quad y = x^2$ about the line $y = 5$

8. (*) RBB $x = 2y^4, \quad y = \dfrac{1}{2}x - 1$ about the y-axis

9. (*) RBB $y = x^3, \quad y = x^2$ about the line $y = -2$

10. (*) RBB $x = y^2, \quad x = 4, \quad y = 1$ about the x-axis

11. (**) RBB $y = x - 2, \quad x = y^2$ about the line $y = -1$

12. (**) RBB $y = -(x - 2)^2, \quad x = 4, \quad y = 0$ about the line $x = 10$