

SECONDARY MATH II
DOMAIN 1 UNIT REVIEW

NAME _____
DATE _____
CLASS _____

1. Convert $\sqrt{5y}$ to rational exponent notation.
2. Convert $\sqrt[3]{y^3}$ to rational exponent notation.
3. Convert $2^{\frac{2}{9}}$ to radical notation.
4. Convert $y^{\frac{7}{5}}$ to radical notation.
5. Compute $\sqrt[3]{81} \cdot \sqrt{3}$. Give your answer as a radical.
6. What is the area of a rectangle with a length $\sqrt{3}$ and width $\sqrt[3]{3}$. Give your answer as a radical.
7. Simplify $\sqrt{6}(4 + \sqrt{8})$. Give your answer as a radical.
8. Simplify $\sqrt{27} - 4\sqrt{3} + \sqrt{18}$. Give your answer as a radical.
9. Simplify $(6 - \sqrt{2})(3 + \sqrt{5})$. Give your answer as a radical.
10. Tell whether each problem below will result in a rational or irrational number.

a. $5 + \sqrt{5}$ _____

d. $6\sqrt{3}$ _____

b. $\frac{4}{5} + 13$ _____

e. $\frac{6}{5} \cdot \frac{3}{8}$ _____

c. $7 \cdot \pi$ _____

f. $\frac{5}{4} \cdot \sqrt[3]{14}$ _____