Writing Equivalent Explicit Exponential Equations from a Point

Directions: Use the given point and common ratio to write the requested number of different explicit equations. All equations must represent the same exponential function. Show all work.

1. Point: $(1, 12)$; common ratio = $\frac{1}{4}$. Write two different explicit equations that represent the function.

2. Point: $(3, 1)$; common ratio = 2. Write two different explicit equations that represent the function.

3. Point: $(2, 18)$; common ratio = 3. Write two different explicit equations that represent the function.

4. Point: $(2, \frac{1}{3})$; common ratio = 2. Write two different explicit equations that represent the function.

5. Point: $(1, 5)$; common ratio = 3. Write two different explicit equations that represent the function.

6. Point: $(4, 16)$; common ratio = $\frac{1}{2}$. Write two different explicit equations that represent the function.

7. Point: $(2, 8)$; common ratio = 2. Write three different explicit equations that represent the function.

8. Point: $(3, 27)$; common ratio = 3. Write three different explicit equations that represent the function.

9. Point: $(2, 20)$; common ratio = $\frac{1}{2}$. Write three different explicit equations that represent the function.

10. Point: $(4, \frac{1}{16})$; common ratio = 2. Write three different explicit equations that represent the function.

11. Point: $(3, 6)$; common ratio = $\frac{1}{3}$. Write three different explicit equations that represent the function.

12. Point: $(2, -4)$; common ratio = 3. Write three different explicit equations that represent the function.