

BLM 8-2 Section 8.1 Extra Practice

1. a) 2 b) 3 c) 3 d) 4 e) 0 f) $\frac{1}{2}$ g) -2 h) $\frac{3}{5}$

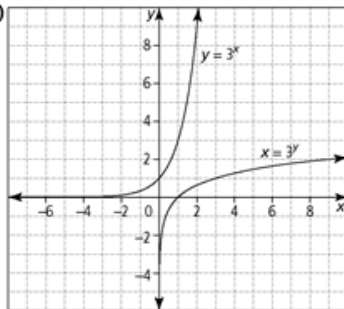
2. a) $\log_3 243 = 5$ b) $\log_{16} 2 = \frac{1}{4}$ c) $\log_2 0.25 = -2$

d) $\log_5 (n + 4) = 2m$

3. a) $4^3 = 64$ b) $4^{\frac{3}{2}} = 8$ c) $10^4 = 10\,000$ d) $6^y = x - 2$

4. a) 16 b) $\frac{1}{5}$ c) 3 d) 8

5. a), b)



c) domain: $\{x \mid x > 0, x \in \mathbb{R}\}$; range: $\{y \mid y \in \mathbb{R}\}$;
x-intercept: (1, 0); y-intercept: none

d) vertical asymptote at $x = 0$

7. a) domain: $\{x \mid x > 0, x \in \mathbb{R}\}$; range: $\{y \mid y \in \mathbb{R}\}$;
x-intercept: (1, 0); y-intercept: none; vertical asymptote at $x = 0$

b) domain: $\{x \mid x > 0, x \in \mathbb{R}\}$; range: $\{y \mid y \in \mathbb{R}\}$;
x-intercept: (1, 0); y-intercept: none; vertical asymptote at $x = 0$

8. a) 5.9 b) 3.1 c) 2.7 d) 1.5

9. a) (4, 0) b) no y-intercept

10. $k = 6$

c) Example: They are reflections of each other over the line $y = x$. Each point on the graph of one function (x, y) appears as the point (y, x) on the other graph.

6. a) $y = \log_{\frac{1}{3}} x$

b)

