Worksheet A: (Topic 2.10) Inverses of Exponential Functions   Name:

Directions: Selected values for several functions are shown below. For each, determine if the given function could be logarithmic, exponential, or neither.

1.

x	$f(x)$
0	1
3	4
6	9
9	16

2.

x	$g(x)$
0	1
1	4
2	16
3	64

3.

x	$h(x)$
1	1
2	3
4	5
8	7

4.

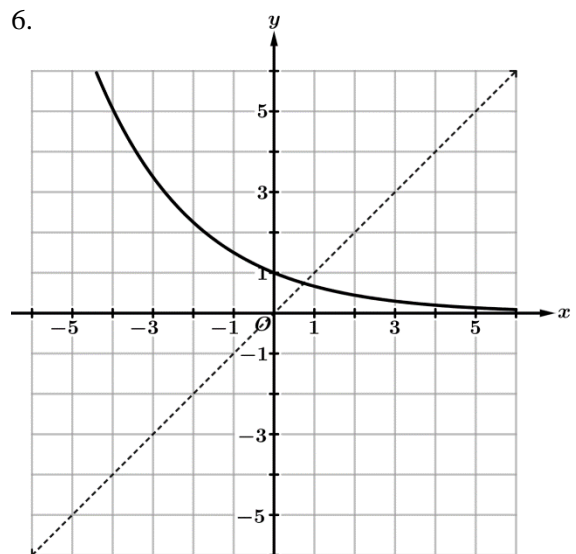| x	$k(x)$
40	−1
20	−2
10	−3
5	−4

Directions: Portions of the graphs of the exponential functions $f(x) = a^x$ and $g(x) = b^x$ are shown below. Sketch the graphs of f^{-1} and g^{-1} on the axes as f and g.

5.
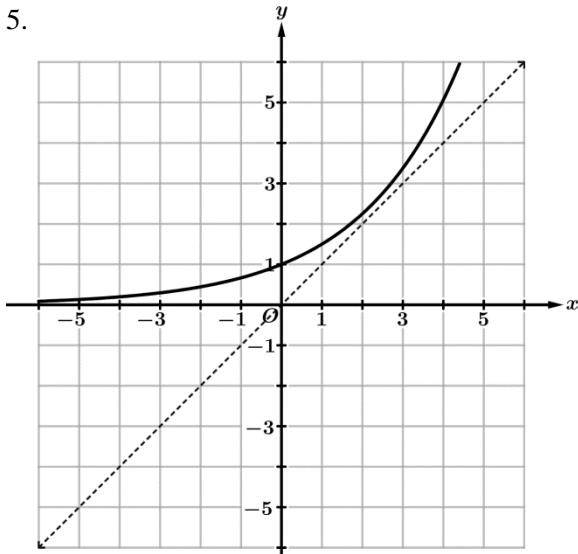
Graph of $f(x)$

6.

Graph of $g(x)$

Directions: Use the graphs above to approximate the following values.

7. $\log_a 3$

8. $\log_a \dfrac{1}{2}$

9. $\log_b 4$

10. $\log_b \dfrac{3}{2}$