

**Math 111 Quiz #5**  
**May 3, 2011**

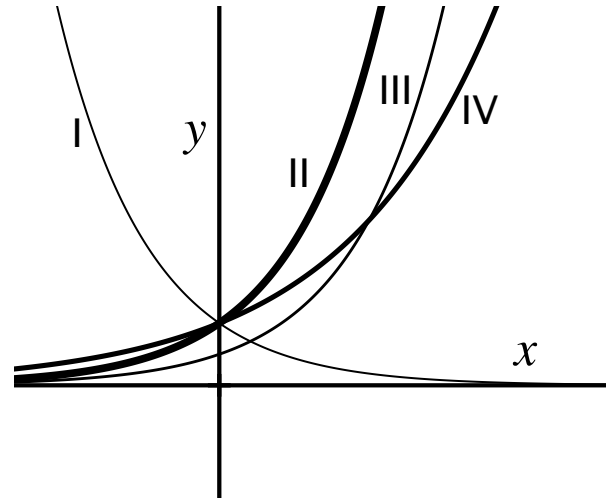
Name: \_\_\_\_\_

Show all work and answers on a separate sheet. Simplify your answers as much as possible.

1. (2 pts.) Four exponential functions are shown to the right. Match each equation below with its corresponding graph. (You do not need to justify your answers.)

(a)  $f(x) = (\frac{1}{2})^x$       (b)  $g(x) = \frac{1}{2}(2)^x$

(c)  $h(x) = 2^x$       (d)  $m(x) = (\frac{3}{2})^x$



2. (1 pt.)  $\log_2 16 = ?$

3. (3 pts.) Solve  $40(3)^x + 5 = 25$ . (Give the exact answer **and** use your calculator to find the approximate decimal answer.)

4. The balance of an account is given by  $B(t) = 1000(1.15)^t$  dollars at year  $t$ .

1. (1 pt.) What is the balance in the account after 3 years?
2. (2 pts.) When will there be \$4045? Round your answer to the nearest year.

**Math 111 Quiz #5**  
**May 3, 2011**

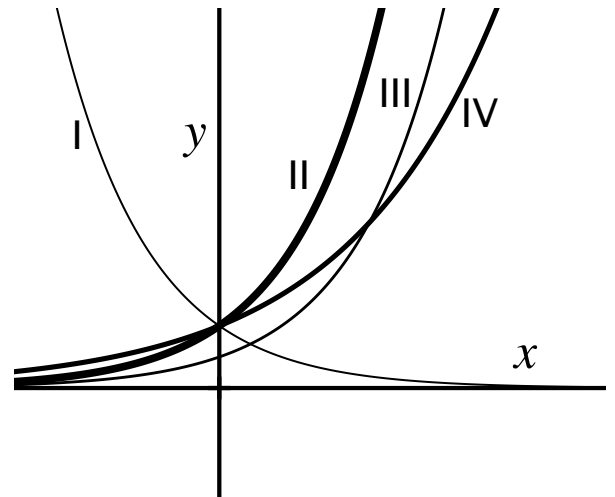
Name: \_\_\_\_\_

Show all work and answers on a separate sheet. Simplify your answers as much as possible.

1. (2 pts.) Four exponential functions are shown to the right. Match each equation below with its corresponding graph. (You do not need to justify your answers.)

(a)  $f(x) = (\frac{1}{2})^x$       (b)  $g(x) = \frac{1}{2}(2)^x$

(c)  $h(x) = 2^x$       (d)  $m(x) = (\frac{3}{2})^x$



2. (1 pt.)  $\log_2 16 = ?$

3. (3 pts.) Solve  $40(3)^x + 5 = 25$ . (Give the exact answer **and** use your calculator to find the approximate decimal answer.)

4. The balance of an account is given by  $B(t) = 1000(1.15)^t$  dollars at year  $t$ .

1. (1 pt.) What is the balance in the account after 3 years?
2. (2 pts.) When will there be \$4045? Round your answer to the nearest year.