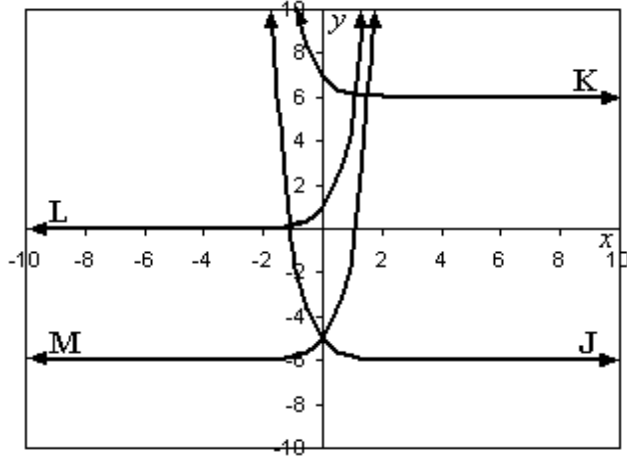**Instructions:**   **Read each question carefully and select the correct answer.**
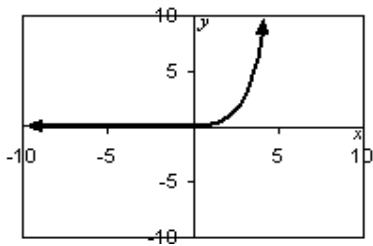
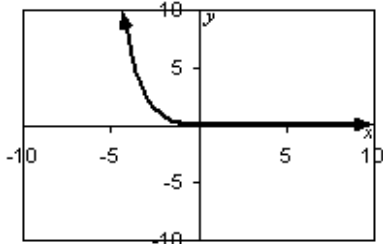1.   Which graph represents the exponential function $y = 5^{-x} + 6$?

A.   J
B.   K
C.   L
D.   M

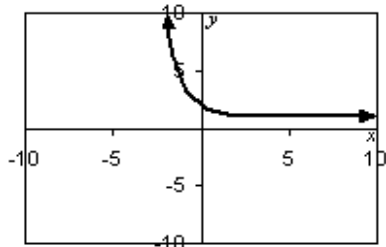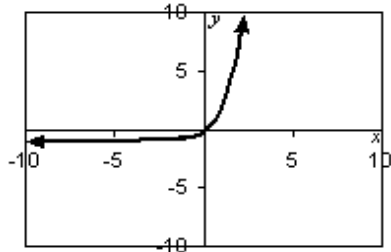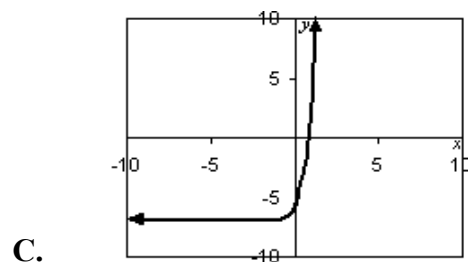2. Which graph represents the exponential function $y = 0.1(3)^{-x}$?

A.

B.

C.

D.

3. Which graph represents the exponential function $y = 10^x - 7$?

A.

B.

C.

D.
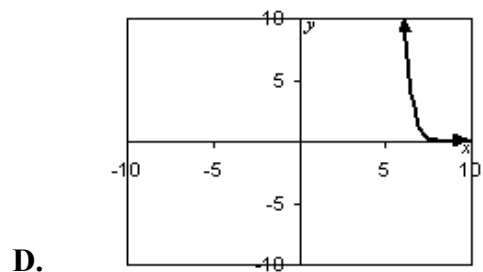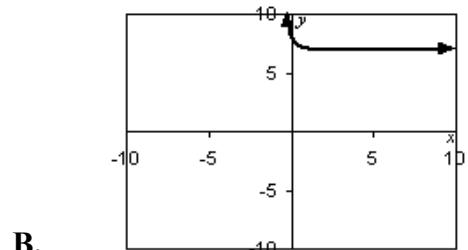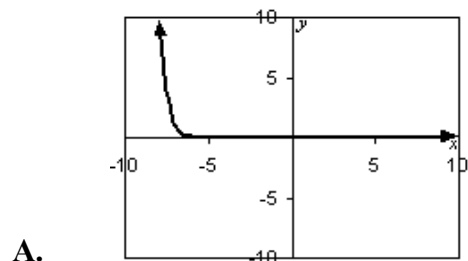
4. Which graph represents the exponential function $y = 4 + 3^{-x}$?

A.

B.

C.

D.
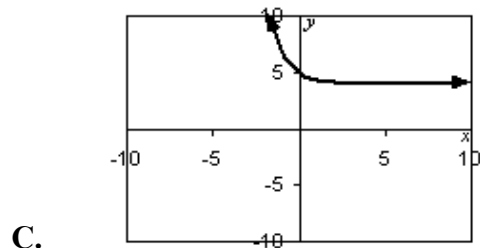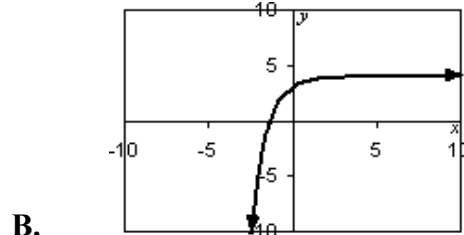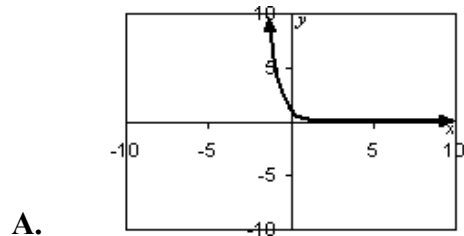
5. Simplify.

$$16^{\frac{3}{4}}$$

A. 4
B. 2
C. 8
D. 12

6. Simplify.

$$49^{\frac{1}{2}}$$

A. 2,401

B. $24\frac{1}{2}$

C. 98
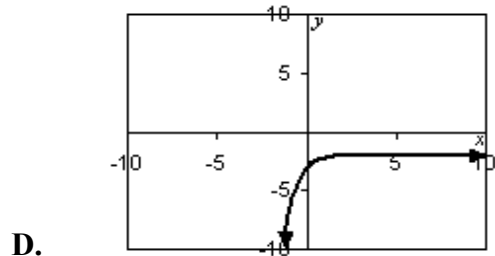
D. 7

7. Simplify.

$$81^{\frac{1}{4}}$$

A. 3

B. 9

C. 324

D. $\frac{81}{4}$

8. Simplify.

$$64^{\frac{1}{2}}$$

A. 4,096

B. 128

C. 8

D. 32

9. Simplify.

$$(4^0)\cdot\left(\frac{1}{2^{-1}}\right)\cdot(2\cdot3)^0 + 5^{-1}$$

A. $\frac{24}{5}$	B. 10
C. 5	D. $\frac{11}{5}$

A. A

B. B

C. C

D. D

10. Simplify.

$$(-3a^4b^6c^3)^2$$

A. $6a^8b^{12}c^6$
B. $9a^8b^{12}c^6$
C. $9a^{16}b^{36}c^9$
D. $-6a^8b^{12}c^6$

A. A
B. B
C. C
D. D

11. Simplify.

$$(x^0) \cdot (x^3)$$

A. $\dfrac{1}{x^3}$
B. 0
C. x^3
D. x^{2a}

A. A
B. B
C. C
D. D

12. Simplify.

$$(6x^3y^2)(3x^2y^5)$$

A. $18x^5y^7$
B. $18x^6y^{10}$
C. $18y^{-3}$
D. $\dfrac{18x}{y^3}$

A. A
B. B
C. C
D. D