## F.LE.A.4: Express Exponentials as Logarithms

- 1 If  $\log_b x = y$ , then x equals
  - 1)  $y \cdot b$

  - 3)  $y^b$
  - 4)  $b^{y}$
- 2 The equation  $\log_a x = y$  where x > 0 and a > 1 is equivalent to
  - 1)  $x^{y} = a$
  - $2) \quad y^a = x$
  - 3)  $a^{y} = x$
  - $4) \quad a^x = y$
- 3 The function  $y = 2^x$  is equivalent to
  - 1)  $x = y \log 2$
  - 2)  $x = \log_2 y$
  - 3)  $y = x \log 2$
  - 4)  $y = \log_2 x$
- 4 Given  $p \neq q, p = \left(\frac{1}{2}\right)^q$ , expressed in logarithmic
  - form, is equivalent to
  - $1) \quad \log_p\left(\frac{1}{2}\right) = q$
  - 2)  $\log_{q}(p) = \frac{1}{2}$ 3)  $\log_{\frac{1}{2}}(p) = q$ 4)  $\log_{\frac{1}{2}}(q) = p$

## F.LE.A.4: Express Exponentials as Logarithms Answer Section

1	ANS:	4	REF:	060409b
2	ANS:	3	REF:	011503a2
3	ANS:	2	REF:	080607b
4	ANS:	3	REF:	012404aii