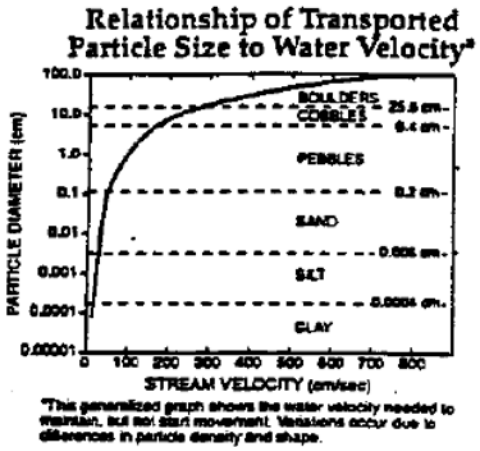
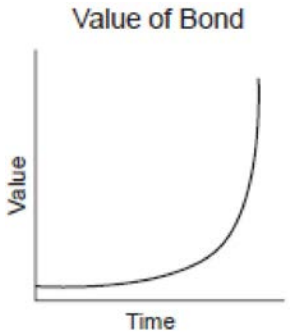
F.LE.A.2: Families of Functions 2a

1 The graph below represents the relationship of transported particle size to water velocity? The graph best models which type of function?



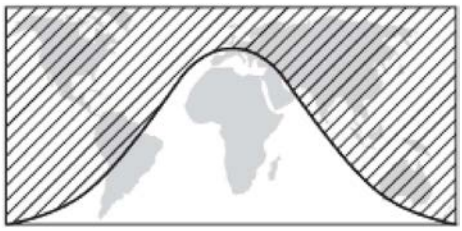
1) linear
2) quadratic
3) logarithmic
4) trigonometric

2 The accompanying graph represents the value of a bond over time.



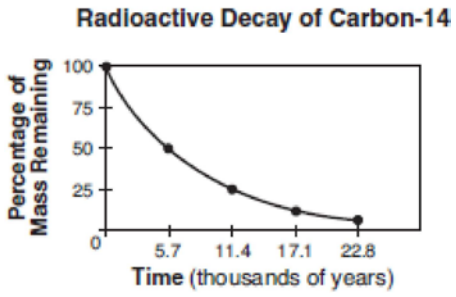
Which type of function does this graph best model?
1) trigonometric
2) logarithmic
3) quadratic
4) exponential

3 The shaded portion of the accompanying map indicates areas of night, and the unshaded portion indicates areas of daylight at a particular moment in time.



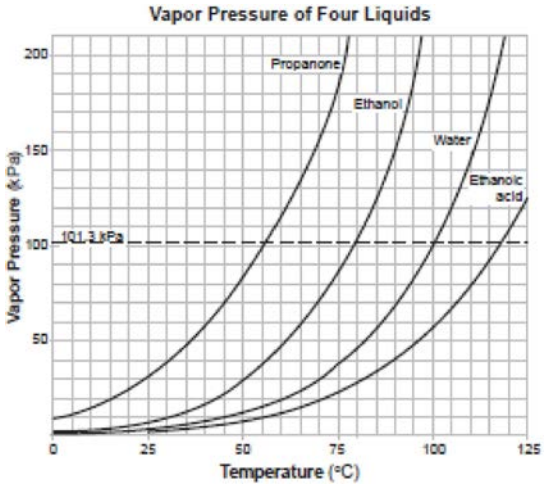
Which type of function best represents the curve that divides the area of night from the area of daylight?
1) quadratic
2) cosine
3) tangent
4) logarithmic

4 Which type of function could be used to model the data shown in the accompanying graph?



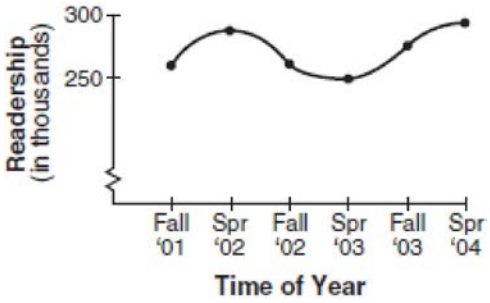
1) exponential
2) quadratic
3) trigonometric
4) linear

5 The family of curves shown in the accompanying graph illustrates the transformations of a function.



Which type of function could be the original function?
1) linear
2) tangent
3) exponential
4) sinusoidal

6 The accompanying graph shows the average daily readership, in thousands, of the newspaper "El Diario La Prensa."



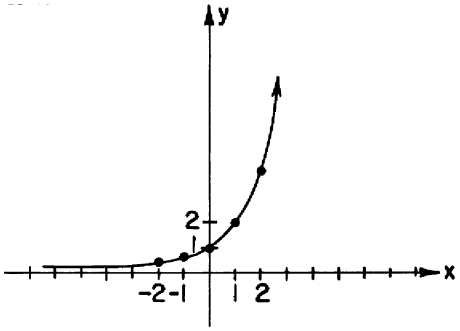
Which type of function best represents this graph?
1) exponential
2) logarithmic
3) trigonometric
4) quadratic

7 Four points on the graph of the function f(x) are shown below.

$$\{(0,1),(1,2),(2,4),(3,8)\}$$

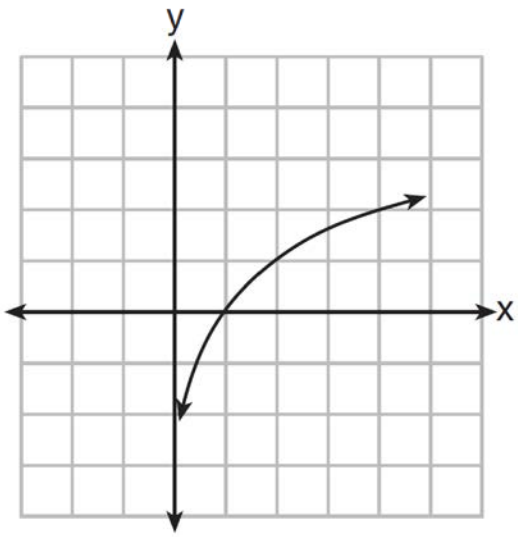
Which equation represents f(x)?
1) $f(x) = 2^x$
2) $f(x) = 2x$
3) $f(x) = x + 1$
4) $f(x) = \log_2 x$

8 Which is the equation of the graph shown below?



1) $y = \log_2 x$
2) $y = -\log_2 x$
3) $y = 2^x$
4) $y = 2^{-x}$

9 Which equation is represented by the accompanying graph?



1) $y = 2^x$
2) $y = 2^{-x}$
3) $y = \log x$
4) $y = \log_2 x$

10 Which graph has line symmetry with respect to the y-axis?

1) $y = x$
2) $y = x^2$
3) $y = \sin x$
4) $y = \tan x$

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Answer Section

1	ANS: 3	REF: fall9901b
2	ANS: 4	REF: 010203b
3	ANS: 2	REF: 010502b
4	ANS: 1	REF: 080710b
5	ANS: 3	REF: 080808b
6	ANS: 3	REF: 060913b
7	ANS: 1	REF: 061004a2
8	ANS: 3	REF: 088629siii
9	ANS: 4	REF: 061016b
10	ANS: 2	REF: 068120siii