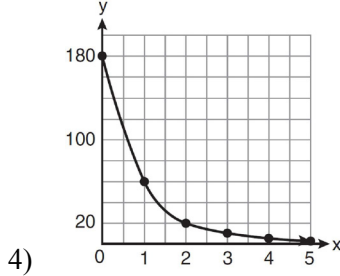
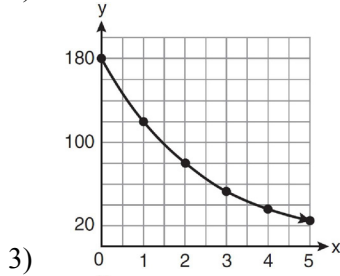
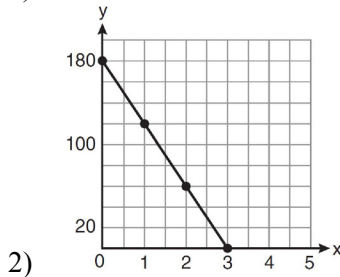
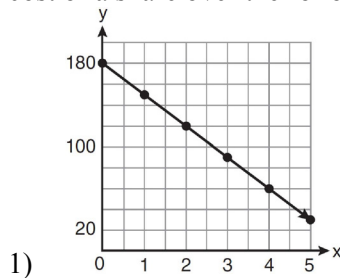
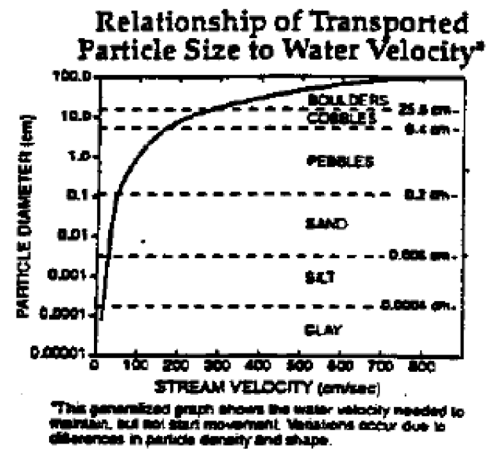


A2.A.52: Families of Functions: Identify relations and functions, using graphs

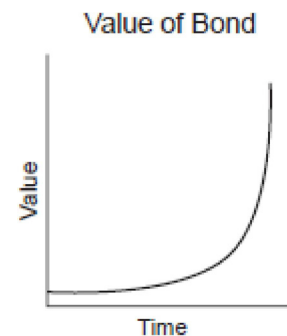
- 1 On January 1, a share of a certain stock cost \$180. Each month thereafter, the cost of a share of this stock decreased by one-third. If x represents the time, in months, and y represents the cost of the stock, in dollars, which graph best represents the cost of a share over the following 5 months?



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



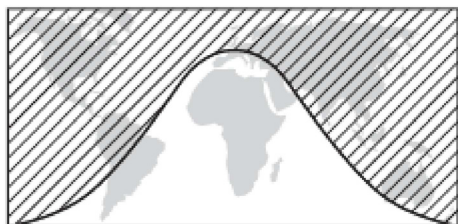
- 1) linear
2) quadratic
3) logarithmic
4) trigonometric
- 3 The accompanying graph represents the value of a bond over time.



Which type of function does this graph best model?

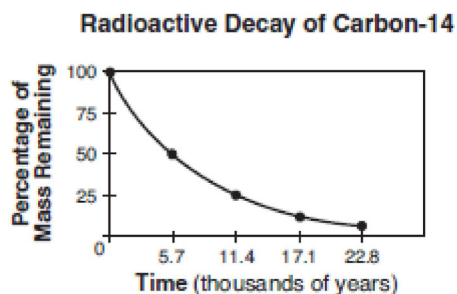
- 1) trigonometric
2) logarithmic
3) quadratic
4) exponential

- 4 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.



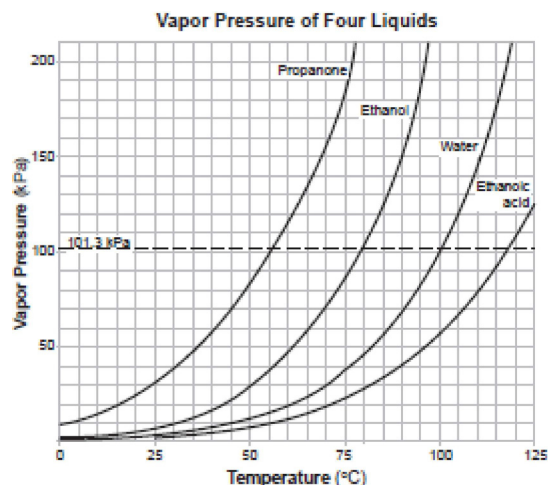
Which type of function best represents the curve that divides the area of night from the area of daylight?

- 1) quadratic
 - 2) cosine
 - 3) tangent
 - 4) logarithmic
- 5 Which type of function could be used to model the data shown in the accompanying graph?



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

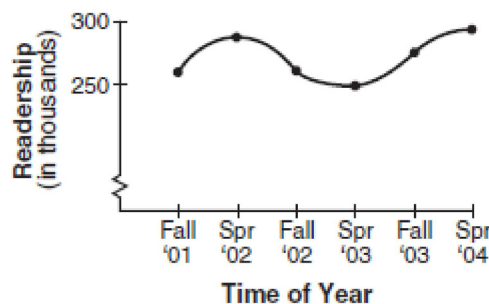
- 6 The family of curves shown in the accompanying graph illustrates the transformations of a function.



Which type of function could be the original function?

- 1) linear
- 2) tangent
- 3) exponential
- 4) sinusoidal

- 7 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

A2.A.52: Families of Functions: Identify relations and functions, using graphs**Answer Section**

| | | |
|---|--------|----------------|
| 1 | ANS: 3 | REF: 011119a2 |
| 2 | ANS: 3 | REF: fall9901b |
| 3 | ANS: 4 | REF: 010203b |
| 4 | ANS: 2 | REF: 010502b |
| 5 | ANS: 1 | REF: 080710b |
| 6 | ANS: 3 | REF: 080808b |
| 7 | ANS: 3 | REF: 060913b |