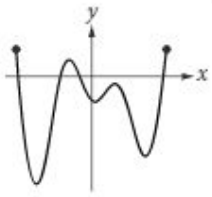
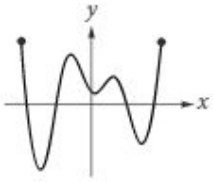
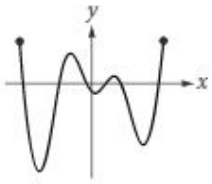
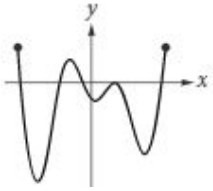
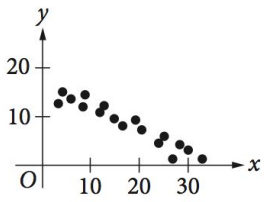
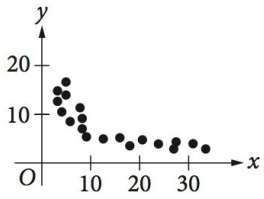
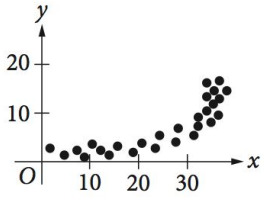
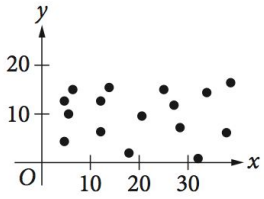
Graphs: Level 2

No Calculator

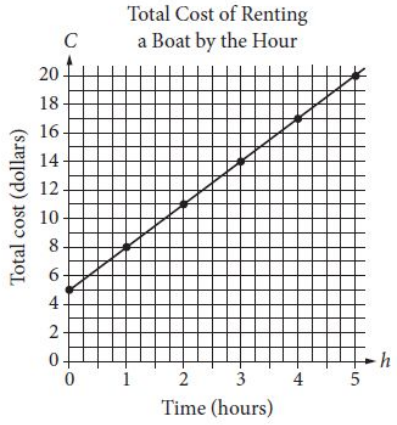
1	In the xy-plane, the parabola with equation $y = (x - 11)^2$ intersects the line with equation $y = 25$ at two points, A and B. What is the length of $\overline{AB}$? A) 10 B) 12 C) 14 D) 16	No Calculator

With Calculator

2	If the function f has five distinct zeros, which of the following could represent the complete graph of f in the xy-plane? A)  B)  C)  D) 	With Calculator

3	Which of the following scatterplots shows a relationship that is appropriately modeled with the equation $y = ax^b$, where a is positive and b is negative? A)  B)  C)  D)  	With Calculator

4



The graph above displays the total cost C, in dollars, of renting a boat for h hours.

Which of the following represents the relationship between h and C ?

A) $C = 5h$

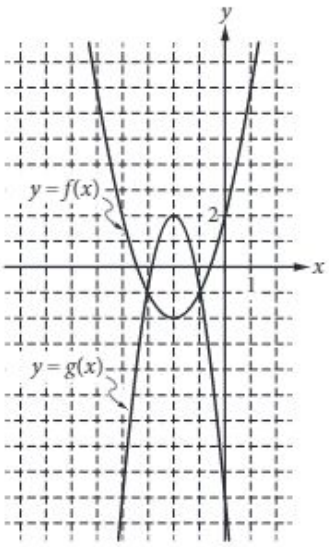
B) $C = \frac{3}{4}h + 5$

C) $C = 3h + 5$

D) $h = 3C$

With Calculator

5



Graphs of the functions f and g are shown in the xy-plane above. For which of the following values of x does $f(x) + g(x) = 0$?

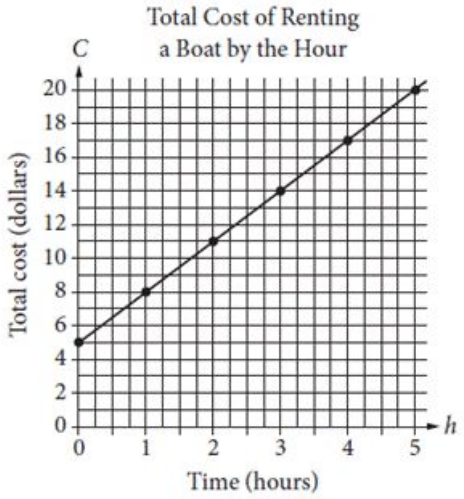
A) -3

B) -2

C) -1

D) 0

With Calculator

6	 The graph above displays the total cost C, in dollars, of renting a boat for h hours.	With Calculator What does the C-intercept represent in the graph? A) The initial cost of renting the boat B) The total number of boats rented C) The total number of hours the boat is rented D) The increase in cost to rent the boat for each additional hour