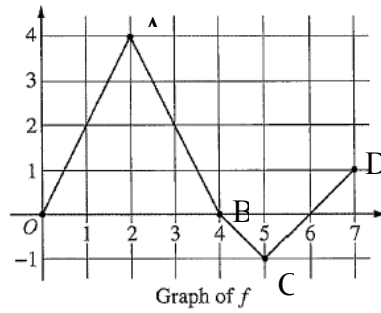
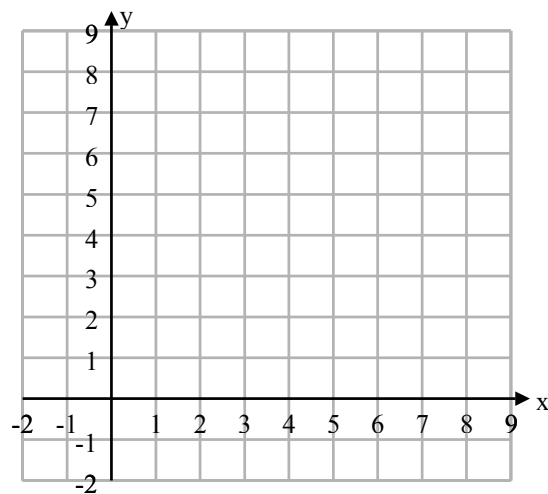


Adaptation of 2003 Calculus AB Form B question 5 for Geometry (2)



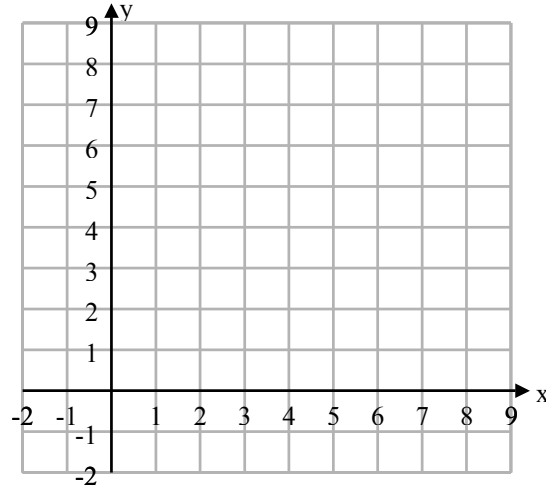
1. Graph $h(x) = f(x) + 1$.



2. Devise a plan for finding the area bounded by the x -axis, the y -axis, the curve $h(x)$, and the line $x = 7$. Explain your plan.

3. Calculate the area described in question 2. Show the calculations that support your answer.

4. Graph $g(x) = f(x) + 3$.



5. Devise a plan for finding the area bounded by the x -axis, the y -axis, the curve $g(x)$, and the line $x = 7$ then explain your plan.

6. Calculate the area described in question 5. Show the calculations that support your answer.

7. Compare your answers from question 3 and 6. By looking at the geometric differences in the two figures, give a geometric reason why the difference between the two answers is 14.

8. Without drawing the figure, if $k(x) = f(x) + 5$, what is the area bounded by the x -axis, the y -axis, the curve $g(x)$, and the line $x = 7$? Explain your reasoning.