8-3A Lesson Master

Questions on SPUR Objectives

SKILLS Objective B
In 1–3, find an equation for $f^{-1}$.

1. $f(x) = 3 - 5x$
2. $f(x) = mx + b$
3. $f(x) = \frac{5}{x}, x \geq 0$

PROPERTIES Objective F

4. Fill in the Blank If $f(21.6) = 3.71$, then $f^{-1}(3.71) =$

5. Fill in the Blank If a function $b$ has an inverse $b^{-1}$, then $b(b^{-1}(n)) =$

6. Let $g(x) = \frac{7}{3}x + 5$ and $h(x) = \frac{3}{7}x - 5$.
   a. $g(h(x)) =$
   b. $h(g(x)) =$
   c. Are $g$ and $h$ inverses? Explain.

REPRESENTATIONS Objective J
In 7 and 8, a function is graphed below each question. Write a restriction of the domain so that the inverse is also a function. Then draw the inverse on the same graph.

7. $f(x) = (x - 2)^2 - 3$

8. $g(x) = \frac{x^4}{4}$