

Q4HW5 - All work on looseleaf.

Date_____ Period_____

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Find the inverse of each function.

1) $h(x) = 3x - 4$

2) $f(x) = 1 + \frac{3}{2}x$

3) $g(x) = \frac{3x - 7}{2}$

4) $f(x) = \frac{5}{2}x - \frac{5}{2}$

5) $f(x) = -\frac{1}{2}x$

6) $f(x) = 1 + \frac{1}{3}x$

Use the composition of the two given functions to show if they are inverses.

7) $g(x) = \frac{3}{5}x + \frac{3}{5}$

$f(x) = -1 + \frac{5}{3}x$

8) $f(x) = -\frac{3}{7}x + \frac{6}{7}$

$g(x) = 2 - \frac{7}{3}x$

9) $f(x) = -2x$
 $g(x) = x + 1$

10) $f(x) = x - 1$
 $g(x) = -x - 4$

11) $f(x) = \frac{5x - 5}{6}$

$g(x) = \frac{5 + 6x}{5}$

12) $g(x) = \frac{3}{8}x + \frac{9}{8}$

$f(x) = -3 + \frac{8}{3}x$

Find the inverse and graph the function with its inverse. Graph the dashed line $y = x$.

13) $f(x) = -x + 3$

14) $g(x) = \frac{-x + 7}{2}$

15) $f(x) = -5 + \frac{2}{5}x$

16) $f(x) = 5 + \frac{3}{2}x$

Use the information provided to write the standard form equation of each circle.

17) Ends of a diameter: $(1, -16)$ and $(-3, 12)$

18) Ends of a diameter: $(12, 12)$ and $(4, -8)$

Find the missing term or terms in each geometric sequence, i.e., the geometric mean.

19) ..., -1, ____, -9, ...

20) ..., -2, ____, -8, ...