

Questions on 7.6 HW? Quiz
today...

9. Do the graphs ever intersect each other?
How do you know?

Use the graph to find the indicated values:

10. $f(g(-2))$

11. $f(g(-1)) = f(0) = 2$

12. $f(g(1.5))$

13. $f(f(0)) = f(2) = 6$

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1. Make a histogram of the grouped data in the chart. Note:
 The midpoint of each cell is given in the horizontal axis. The sides of the cells will match the score interval. Frequency is the vertical height.

SKIP

Score interval	Midpoint of interval	Frequency of interval
92.5 - 97.5	95	2
87.5 - 92.5	90	4
82.5 - 87.5	85	10
77.5 - 82.5	80	13
72.5 - 77.5	75	21
67.5 - 72.5	70	26
62.5 - 65.5	65	18
57.5 - 62.5	60	15
52.5 - 57.5	55	12
47.5 - 52.4	50	8
42.5 - 47.5	45	3
37.5 - 42.5	40	3
32.5 - 37.5	35	4
27.5 - 32.5	30	4
22.5 - 27.5	25	1

2. Locate the midpoint at the top of each cell and connect each consecutive midpoint with straight line segments. The resulting figure is

8.50 x 11.00 in

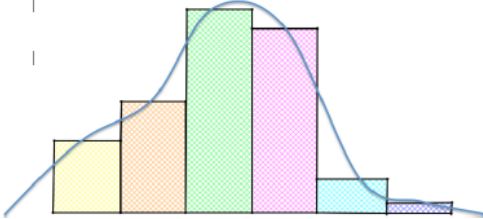
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2. Locate the midpoint at the top of each cell and connect each consecutive midpoint with straight line segments. The resulting figure is called a *frequency polygon*. If you smooth the line segments out into a smooth curve, you will create a *frequency curve*. Make a frequency curve on your histogram. It should look something like the figure on the right.



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Name _____ Modeling With Functions | 7.6

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Find functions f and g so that $f \circ g = H$. $f(g(x)) = H$

3. $H(x) = \sqrt{x^2 + 5x - 4}$
 $g(x) = x^2 + 5x - 4$
 $f(x) = \sqrt{x}$

4. $H(x) = \left(3 - \frac{1}{x}\right)^2$

5. $H(x) = (3x - 7)^4$
 $g(x) = 3x - 7$
 $f(x) = x^4$

6. $H(x) = |5x^2 - 78|$

7. $H(x) = \frac{2}{3 - x^5}$
 $g(x) = x^5$
 $f(x) = \frac{2}{3 - x}$

8. $H(\theta) = (\tan \theta)^2$

9. $H(\theta) = \tan(\theta^2)$

10. $H(x) = \sqrt{\frac{1}{6x}}$

11. $H(x) = 9(4x - 8) + 1$

Go
 Topic: Finding function values given the graph

Use the graph to find all of the missing values.

12. $f(\blacksquare) = 8$ 13. $g(\blacksquare) = 5$

14. $f(\blacksquare) = -1$ 15. $g(\blacksquare) = 0$

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Go
 Topic: Finding function values given the graph
 Use the graph to find all of the missing values.

12. $f(\blacksquare) = 8$ 13. $g(\blacksquare) = 5$
 or $\blacksquare = 0$

14. $f(\blacksquare) = -1$ 15. $g(\blacksquare) = 0$

19. $f(-1) = \underline{\hspace{1cm}}$ 20. $g(0) = \underline{\hspace{1cm}}$

16. $f(x) = g(x)$ 17. $f(x) - g(x) = 0$
 $x = 2$

18. $f(x) * g(x) = 0$ 19. $f(2) + g(2) = \blacksquare$ $3+3=6$ 20. $f(0) - g(0) = \blacksquare$

8.50 x 11.00 in

Units 1-3 Review

Inverse

- 1 - switch x & y
- 2 - solve for y
- 3 - make $y = f^{-1}(x)$

Logarithm Properties

Product : $\log_2 x + \log_2 y = \log_2 (x \cdot y)$

Quotient : $\log_2 x - \log_2 y = \log_2 \left(\frac{x}{y}\right)$

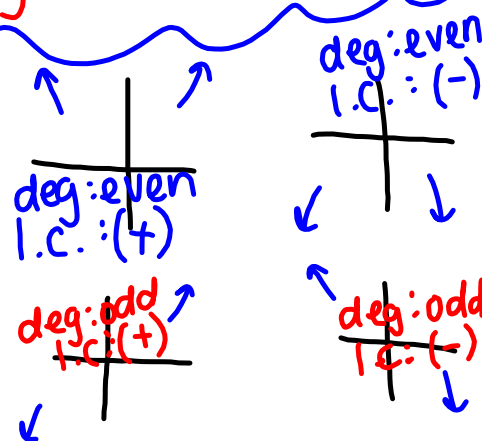
Power : $\log_2 x^y = y \cdot \log_2 x$

Polynomials

degree: highest power

even or odd degree

leading coefficient: (+) or (-)



Homework

Units 1-3 Review WKS