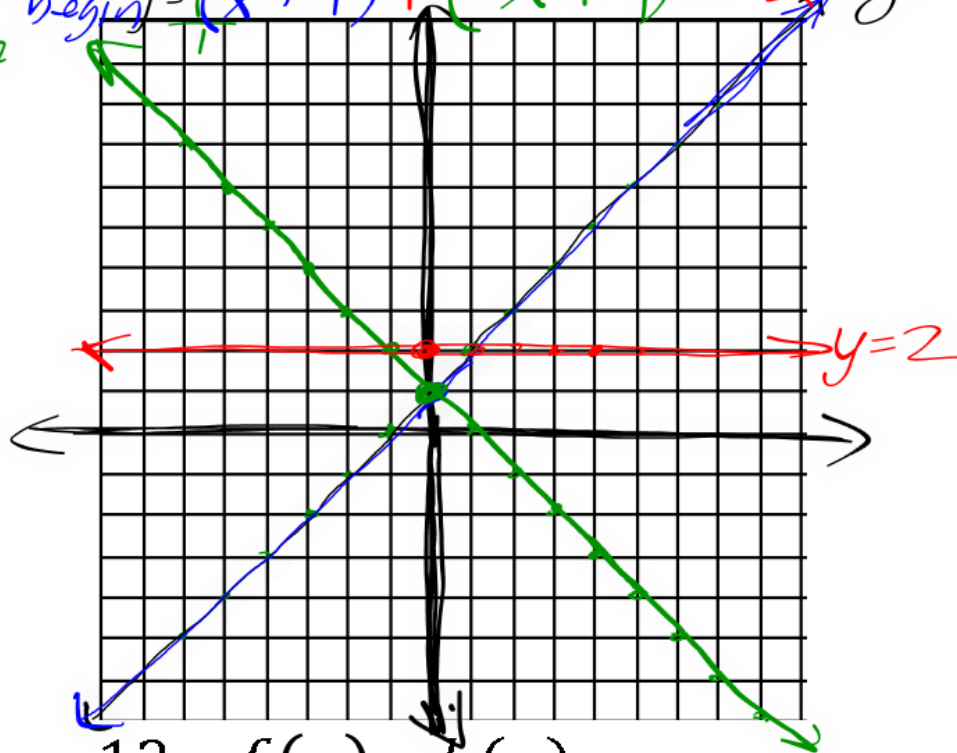


HW 3.4

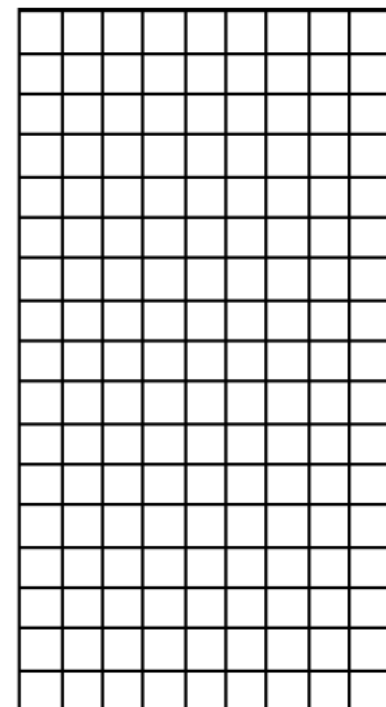
A3 class work

booksec3_mod3_polyfun.pdf - Adobe Acrobat Reader DC
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 Home Tools Sec 3 Test 1 Retake... booksec3_mod3_p... x
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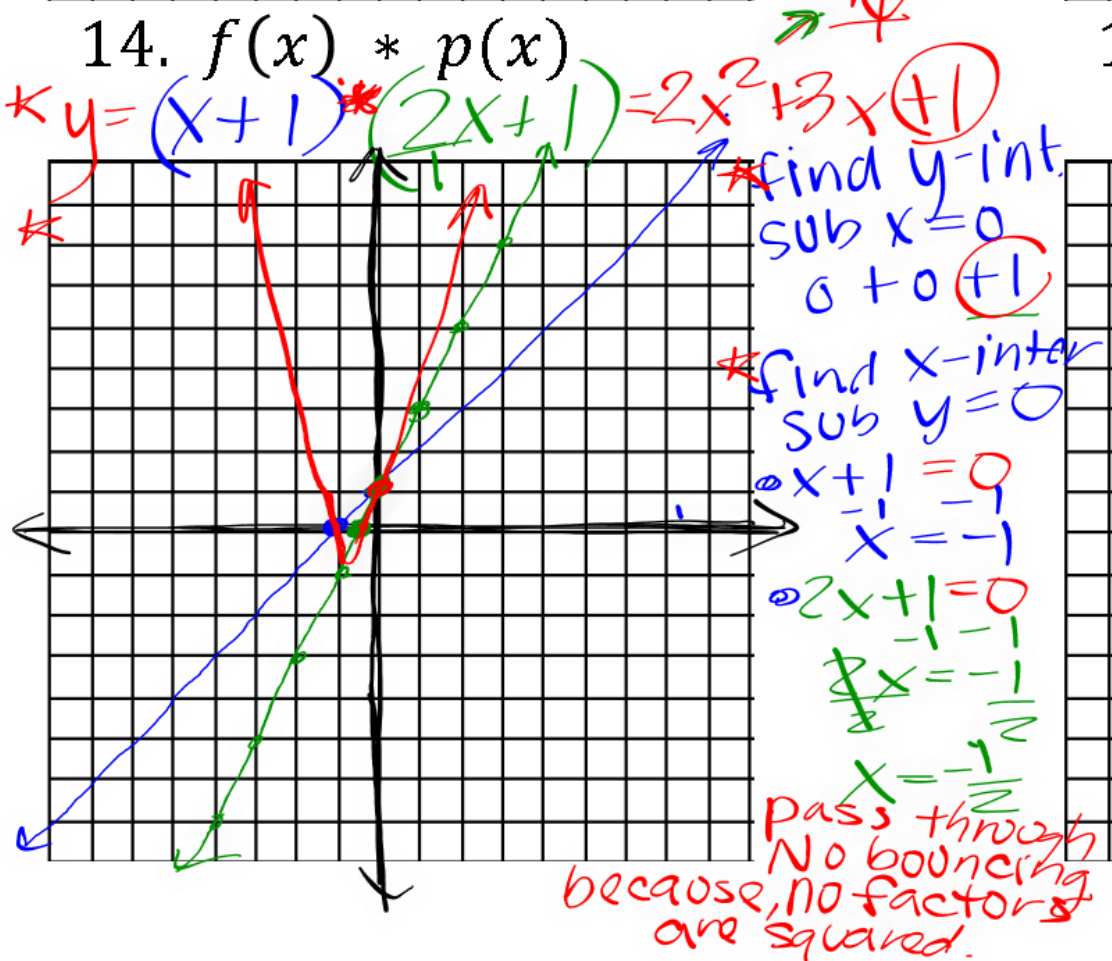
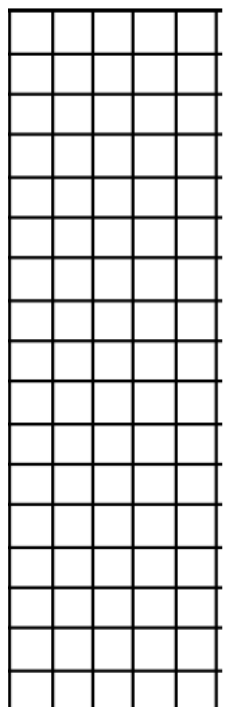
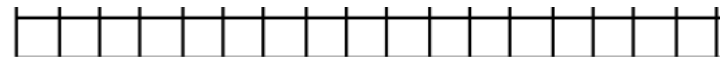
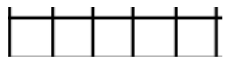
10. $f(x) + h(x)$
 $y = mx + b$ *begin* $y = (x + 1) + (-x + 1) = 2 = y$
slope change



11. $h(x) +$



14. $f(x)$



$$17. x^3 - 4x^2 + 4x^3 + 3x^2 - x + 6$$

$$19. 4x^2 + 4x^3 + 3x^2 - x + 6$$

$$21. \left(\frac{2x^{-2}y^3z^4}{yz^4} \right)^2$$

y^{3-1} z^{4-4}

$$\left(\frac{2}{x^2} \frac{y^3}{y} \frac{z^4}{z^4} \right)^2$$

$y \cdot y \cdot y$

$$\left(\frac{2y^2}{x^2} \right)^2 = 2^2 \frac{(y^2)^2}{(x^2)^2} = \frac{4y^4}{x^4}$$

xx yy

25. $(x - 5)(x^2 + 5x + 25)$

27. $(x + 7)(x^2 - 7x + 49)$

$x^3 - 7x^2 + 49x + 7x^2 - 49x + 343$

$x^3 + 343$

$x^3 + 7^3$

helpful

$x^3 - x^2 = x^3$

7 7

29. How do you think you would factor $x^3 - 1$?

For each question, lightly sketch the graph of each function, and then on the same set of axes graph the solution.

A1 class work

$f(x) = x + 1$

$h(x) = -x + 1$

$p(x) = 2x + 1$

$m(x) = x^2$

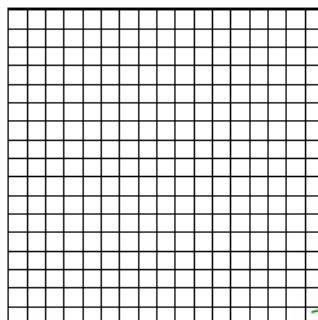
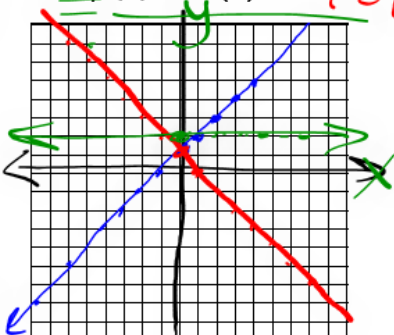
$y = \frac{x+1}{1} + \frac{-x+1}{1} = 2 = y$

10. $f(x) + h(x)$

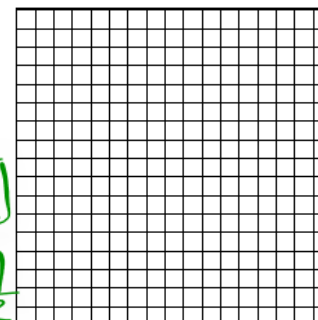
11. $h(x) + p(x)$

12. $m(x) + p(x)$

5) +2
7) +2
9) +2
↑
C



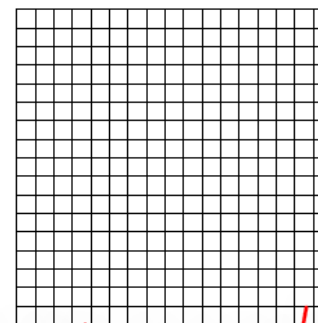
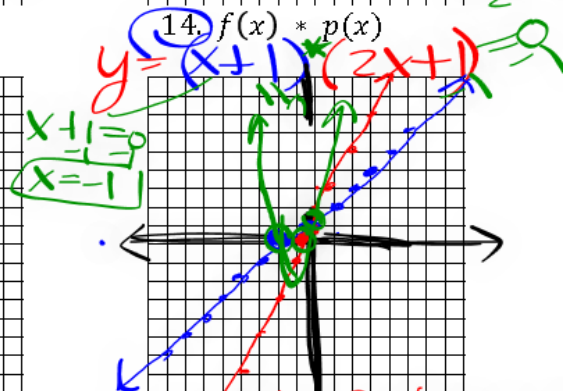
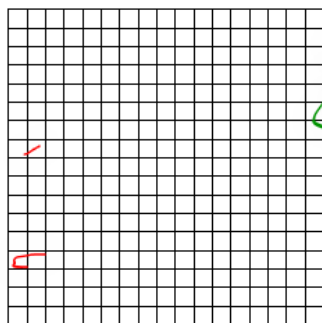
$x = -\frac{1}{2}$
 $2x = -\frac{1}{2}$



13. $f(x) * h(x)$

14. $f(x) * p(x)$

15. $f(x) * m(x)$



- the factors are not squared = pass through points
- $x * x = x^2$
- FOIL to find y-intercept = (+1)

Go



Go

Topic: Simplify each expression.

16. $x^5 + 3x^2 + 4x^4 + 3x^5 - x^3 + 3$

17. $x^3 - 4x^2 + 4x^3 + 3x^2 - x + 6$

18. $(3x^2 + 4x) + (x^2 - 5)$

19. $4x^2 + 4x^3 + 3x^2 - x + 6$

20. $\frac{6x^3y^5}{9yz^4}$

21. $\left(\frac{2x^{-2}y^3z^4}{yz^4}\right)^2$

22. $\frac{6x+9}{3}$

23. $(a + b)(a + b)$

24. $(x - 3)(x^2 + 3x + 9)$

25. $(x - 5)(x^2 + 5x + 25)$

26. $(x + 1)(x^2 - x + 1)$

27. $(x + 7)(x^2 - 7x + 49)$

$$x^3 - 7x^2 + 49x + 7x^2 - 49x + 343$$

$$x^3 + 343$$

28. $(a - b)(a^2 + ab + b^2)$

29. How do you think you would factor $x^3 - 1$?

$$(x \quad)(x \quad)(x \quad) \stackrel{?}{=} x^3 - 1$$