

READY, SET, GO!

Name _____

Period _____

Date _____

READY

Topic: Distributive Property

Simplify. First use the distributive property and then combine the like terms.

Example:

$$3x(4x + 1) + 2(4x + 1) \rightarrow (12x^2 + 3x) + (8x + 2) \rightarrow 12x^2 + \underbrace{[3x + 8x]}_{\text{like terms}} + 2 \rightarrow \underbrace{12x^2 + 11x + 2}_{\text{Simplified form}}$$

1. $2x(5x + 3) + 7(5x + 3)$

2. $8x(x + 1) + 2(x + 1)$

3. $6x(x - 10) - 1(x - 10)$

4. $1x(3x + 4) + 5(3x + 4)$

5. $3x(8x + 3) - 4(8x + 3)$

6. $5x(2x + 6) + 2(2x + 6)$

SET

Topic: Multiplying polynomials

Multiply. Write your answers in standard form.

7. $(x - 3)(3x + 4)$

8. $(x - 3)(x^2 + 3x + 1)$

9. $(3x - 1)(2x - 8)$

10. $(x + 6)(x^2 - 4x + 2)$

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

12. $(x + 6)(x^2 - 4)$

13. $(x + 7)^2$

14. $(x - 4)^2$

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$(x + a)^0$	1	1
$(x + a)^1$	$x + a$	1 1
$(x + a)^2$	$x^2 + 2ax + a^2$	1 2 1
$(x + a)^3$	$x^3 + 3ax^2 + 3a^2x + a^3$	1 3 3 1
$(x + a)^4$	$x^4 + 4ax^3 + 6a^2x^2 + 3a^3x + a^4$	1 4 6 4 1

Use the table above to write each of the following in standard form.

15H. $(x + 1)^5$

16H. $(x - 5)^3$

17H. $(x - 1)^4$

18H $(x + 4)^3$

19H. $(x + 2)^4$

20H. $(3x + 1)^3$

GO

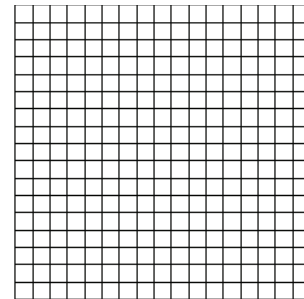
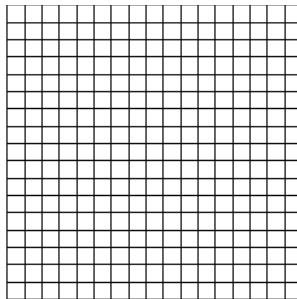
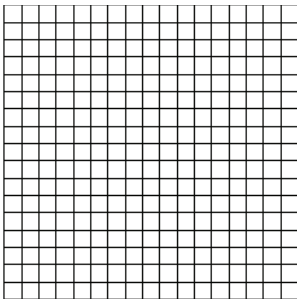
Topic: Graphing different types of functions

Graph the following functions using technology.

21. $g(x) = x + 2$

22. $h(x) = x^2 + 2$

23. $f(x) = 2^x + 2$



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