

Algebra 2

Warm Up Day 33

Name _____

Date _____

1. $\left(\frac{1}{2}x^6\right)^2 =$

- a) x^8 b) x^{12} c) $\frac{1}{4}x^8$
d) $\frac{1}{4}x^{12}$ e) $\frac{1}{4}x^{36}$

2. $[(2x^3y^4)^3]^2 =$

- a) $12x^8y^9$ b) $12x^{18}y^{24}$
c) $64x^8y^9$ d) $64x^{18}y^{24}$
e) $64x^{54}y^{128}$

3. If $ab \neq 0$, then $\left(\frac{a^3b^4}{a^2b^2}\right)^3 =$

- a) a^4b^5 b) a^3b^6 c) a^3b^5
d) a^5b^2 e) a^3b^3

4. Solve for x : $2x - 4\left(4 - \frac{3}{2}x\right) = 8$

- a) 3 b) 0 c) -1
d) -3 e) -6

HOMEWORK DAY 33

Why Is a Stick of Gum Like a Sneeze?

For each exercise, multiply the two polynomials. Find your answer in the set of answers under the exercise. Cross out the letter above your answer. When you finish, the answer to the title question will remain!

- ① $(x + 3)(x + 5)$
- ② $(x + 2)(x + 9)$
- ③ $(x - 8)(x + 1)$
- ④ $(x - 3)(x - 6)$
- ⑤ $(2x + 9)(x - 2)$
- ⑥ $(3x + 1)(2x + 4)$

- ⑦ $(4a - 7)(3a - 2)$
- ⑧ $(2a + 5)(2a - 5)$
- ⑨ $(6a - 1)(2a + 4)$
- ⑩ $(a + 2b)(4a + b)$
- ⑪ $(5a + 3b)(a - 4b)$
- ⑫ $(3a - 8b)(2a - b)$

- ⑬ $(n + 2)(n^2 + 5n - 3)$
- ⑭ $(3n - 1)(2n^2 + 4n + 4)$
- ⑮ $(2n + 3)(6n^2 - 2n + 1)$
- ⑯ $(4n - 5)(n^2 - 7n - 2)$
- ⑰ $(3n - 4)(4n^2 + 2n + 3)$
- ⑱ $(n + 8)(6n^2 - n - 4)$

B	E	S	I	A	U	T	N	T	I	S	E	R	A	N	O	T	C	R	I	H	E	A	N	W	D
$x^2 - 7x - 8$	$x^2 + 8x + 15$	$6x^2 + 14x + 4$	$6x^2 + 7x + 4$	$x^2 - 9x + 18$	$x^2 + 11x + 18$	$x^2 - 13x + 18$	$2x^2 + 5x - 18$	$4a^2 + 9ab + 2b^2$	$6a^2 - 19ab + 8b^2$	$5a^2 - 11ab - 12b^2$	$12a^2 + 22a - 4$	$4a^2 - 25$	$4a^2 + 4ab + 3b^2$	$5a^2 - 17ab - 12b^2$	$12a^2 - 29a + 14$	$6n^3 + 47n^2 - 12n - 32$	$6n^3 + 44n^2 - 9n - 32$	$4n^3 - 33n^2 + 27n + 10$	$6n^3 + 10n^2 + 8n - 4$	$n^3 + 6n^2 + 9n - 6$	$12n^3 - 9n^2 - 2n - 12$	$12n^3 - 10n^2 + n - 12$	$n^3 + 7n^2 + 7n - 6$	$4n^3 - 30n^2 + 21n + 10$	$12n^3 + 14n^2 - 4n + 3$

Homework Day 33

Why Are Babies Like Hinges ?

Simplify each expression below and find your answer in the set of answers to the right of that exercise. Write the letter of your answer in the box that contains the number of that exercise.

$$\textcircled{1} \frac{n^9}{n^5}$$

$$\textcircled{3} \frac{2n^4}{n}$$

$$\textcircled{A} 2n^6$$

$$\textcircled{E} 2n^3$$

$$\textcircled{2} \frac{n^{12}}{n^3}$$

$$\textcircled{4} \frac{6n^2}{3n^5}$$

$$\textcircled{H} n^9$$

$$\textcircled{T} n^4$$

$$\textcircled{R} \frac{2}{n^6}$$

$$\textcircled{Y} \frac{2}{n^3}$$

$$\textcircled{5} \frac{x^3y^4}{x^2y}$$

$$\textcircled{7} \frac{8xy^2}{12x^3y^5}$$

$$\textcircled{R} -4x^3$$

$$\textcircled{A} xy^3$$

$$\textcircled{S} -4y^4$$

$$\textcircled{T} -4y^7$$

$$\textcircled{6} \frac{-8x^6y^2}{2x^3y^2}$$

$$\textcircled{8} \frac{20x^3y^8}{-5x^3y}$$

$$\textcircled{E} \frac{2}{3x^2y^3}$$

$$\textcircled{U} \frac{2}{3xy^4}$$

$$\textcircled{9} \frac{3a^5b^2}{9a^2b^5}$$

$$\textcircled{11} \frac{-24a^2b}{18ab^5}$$

$$\textcircled{I} 5ab^8$$

$$\textcircled{A} 15a^2$$

$$\textcircled{L} 5ab^6$$

$$\textcircled{G} 15a^3$$

$$\textcircled{10} \frac{-15a^2b^9}{-3ab}$$

$$\textcircled{12} \frac{30a^9b^2}{2a^6b^2}$$

$$\textcircled{N} -\frac{4a}{3b^4}$$

$$\textcircled{H} \frac{a^3}{3b^3}$$

$$\textcircled{13} \frac{8u^4v^{10}}{-2u^2v^8}$$

$$\textcircled{15} \frac{-7u^2v^6}{uv^3}$$

$$\textcircled{B} -7uv^5$$

$$\textcircled{S} -4u^2v^2$$

$$\textcircled{O} -7uv^3$$

$$\textcircled{E} -4u^7v^2$$

$$\textcircled{14} \frac{13u^7v^7}{26u^7v}$$

$$\textcircled{16} \frac{-9u^8v^2}{-6u^2v^6}$$

$$\textcircled{T} \frac{v^6}{2}$$

$$\textcircled{A} \frac{3u^6}{2v^4}$$

$$\textcircled{17} \frac{14k^9m^3}{2km^3}$$

$$\textcircled{19} \frac{-3k^5m^6}{k^4m^3}$$

$$\textcircled{E} -3k$$

$$\textcircled{L} 7k^6m$$

$$\textcircled{D} 7k^8$$

$$\textcircled{R} -3km^3$$

$$\textcircled{18} \frac{4k^2m^2}{16k^5m^3}$$

$$\textcircled{20} \frac{12km^3}{-4m^3}$$

$$\textcircled{O} \frac{1}{4k^3m}$$

$$\textcircled{N} \frac{1}{4km^2}$$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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What Did the Girl Mushroom Say About the Boy Mushroom After Their First Date ?



- ① $5(2n^2 + n)$
- ② $3n(8n^2 - 2n)$
- ③ $n^2(4n - 3)$
- ④ $-2n(4 + 5n^3)$
- ⑤ $-6n^2(4n^2 - 9)$

Answers:

- ⑥ $-24n^4 - 54n$
- ⑦ $24n^3 - 4n$
- ⑧ $-24n^4 + 54n^2$
- ⑨ $4n^3 - 3n^2$
- ⑩ $10n^2 + 5n$
- ⑪ $24n^3 - 6n^2$
- ⑫ $-8n - 6n^3$
- ⑬ $-8n - 10n^4$

For each exercise below, multiply the polynomial by the monomial. Find your answer in the set of answers under the exercise and notice the letter next to it. Write this letter in the box that contains the number of that exercise.



- ④ $4a(a^2 - 2a + 3)$
- ⑦ $-2a^2(9 - a - 4a^2)$
- ⑧ $a^2b(a^2 - b^2)$
- ⑨ $-3ab^2(a^3b^2 - 2a^2b)$
- ⑩ $2ab(a^2 + 4ab - 3b^2)$

Answers:

- ⑭ $4a^3 - 8a^2 + 10$
- ⑮ $-18a^2 + 2a^3 + 8a^4$
- ⑯ $2a^3b + 8a^2b^2 - 6ab^3$
- ⑰ $2a^3b + 8ab^2 - 4ab$
- ⑱ $a^4b - a^2b^3$
- ⑲ $4a^3 - 8a^2 + 12a$
- ⑳ $-18a^2 + 2a^3 + 6a^5$
- ㉑ $-3a^4b^4 + 6a^3b^3$

- ⑪ $x^2y(2x^2 - 4xy + y^2)$
- ⑫ $-2xy^2(2x^4 - 5x^2y^2 - 3y^4)$
- ⑬ $4x^3y(-x^2y + 2xy - 5xy^2)$
- ⑭ $-x^2y^3(7xy^3 - x^2y^2 + 3x^3y)$
- ⑮ $3x^2y^2(2x^4y^2 - 3x^2y - 1)$

Answers:

- ⑲ $-4x^5y^2 + 10x^3y^4 + 6xy^6$
- ⑳ $2x^4y - 4x^2y^3 + x^2y^4$
- ㉑ $-4x^5y^2 + 8x^4y^2 - 20x^4y^3$
- ㉒ $-4x^5y^2 + 10x^2y^4 - 20x^2y^3$
- ㉓ $2x^4y - 4x^3y^2 + x^2y^3$
- ㉔ $6x^6y^4 - 9x^4y^3 - 3x^2y^2$
- ㉕ $-7x^3y^6 + x^5y^4 - 3x^3y^4$
- ㉖ $-7x^3y^6 + x^4y^5 - 3x^5y^4$

7	10	1	5	13	4	9	2	11	8	15	3	12	6	14
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CLASS WORK
DAY 33

CLASSWORK DAY 33

What Did They Say About the Man Who Drank Shellac?

Do each exercise below and find your answer in the set of answers to the right of that exercise. Write the letter of your answer in the box containing the number of that exercise.

① $(x + 4)(x + 2)$

② $(x + 7)(x + 1)$

③ $(x - 6)(x - 3)$

④ $(x + 8)(x - 2)$

⑤ $(x - 7)(x + 4)$

⑥ $(x - 2)(x - 9)$

Ⓜ $x^2 - 9x + 18$

Ⓐ $x^2 - 11x + 18$

Ⓢ $x^2 - 5x - 28$

Ⓜ $x^2 + 6x + 8$

Ⓐ $x^2 + 6x - 16$

Ⓝ $x^2 + 4x + 7$

Ⓔ $x^2 + 8x + 7$

Ⓓ $x^2 - 3x - 28$

Ⓡ $x^2 - 2x + 18$

Ⓛ $x^2 + 3x - 16$

⑦ $(2u + 4)(u + 1)$

⑧ $(3u + 7)(u - 3)$

⑨ $(4u - 2)(5u - 1)$

⑩ $(2u + 1)(9u - 5)$

⑪ $(7u - 4)(3u + 6)$

⑫ $(5u - 8)(4u - 4)$

Ⓛ $21u^2 + 30u - 24$

Ⓥ $20u^2 - 14u + 2$

Ⓤ $3u^2 + u - 21$

Ⓞ $3u^2 - 2u - 21$

Ⓣ $18u^2 + 2u - 5$

Ⓛ $2u^2 + 6u + 4$

Ⓢ $21u^2 + 23u - 24$

Ⓨ $20u^2 - 52u + 32$

Ⓔ $18u^2 - u - 5$

Ⓝ $20u^2 - 41u + 32$

⑬ $(2x + y)(x + 3y)$

⑭ $(3x - y)(8x - y)$

⑮ $(2x + y)(4x - 3y)$

⑯ $(5x - 2y)(3x + 4y)$

⑰ $(7x + 3y)(x + 2y)$

⑱ $(6x + 6y)(2x - 4y)$

Ⓔ $8x^2 + xy - 3y^2$

Ⓝ $8x^2 - 2xy - 3y^2$

Ⓕ $2x^2 + 7xy + 3y^2$

Ⓡ $7x^2 + 8xy + 6y^2$

Ⓛ $24x^2 - 11xy + y^2$

Ⓣ $12x^2 - 9xy - 24y^2$

Ⓜ $12x^2 - 12xy - 24y^2$

Ⓐ $15x^2 + 9xy - 8y^2$

Ⓢ $7x^2 + 17xy + 6y^2$

Ⓛ $15x^2 + 14xy - 8y^2$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
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