

Unit 2 Lesson 2 #1-18
 Unit 2 Lesson 3 #19-36 (optional)
 What Do You Call a Bar of Soap That Doesn't Clean?

Simplify the expression, then cross out the letter pair next to the answer. For each letter pair that you DON'T cross out, write the upper case letter in the box containing the lower case letter.

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| $x^7 \leftarrow$ | 1 $x^2 \cdot x^5$ | I-P $12x^5$ | 7 $(ab^3)(a^3b) = a^4b^4$ | D-S $14a^5b^7$ |
| $7x^4 \leftarrow$ | 2 $7x^3 \cdot x$ | O-H x^{11} | 8 $(2ab)(3ab^5) = 6a^2b^6$ | I-B $6a^3b^5$ |
| $12x^5 \leftarrow$ | 3 $4x^4 \cdot 3x$ | C-S x^7 | 9 $(-4ab^2)(9a^5b) = -36a^6b^3$ | D-N $-36a^3b^7$ |
| $x^{13} \leftarrow$ | 4 $x \cdot x^3 \cdot x^9$ | O-U $30x^4$ | 10 $ab(-6a^3b^2) = -8a^4b^3$ | J-K $6a^2b^6$ |
| $30x^9 \leftarrow$ | 5 $(-5x^7)(-6x^2)$ | D-U x^{13} | 11 $(-2a^4b)(-7ab^6) = 14a^5b^7$ | J-C $-8a^4b^3$ |
| $x^{11} \leftarrow$ | 6 $x(-x^5)(-x^5)$ | E-T $7x^4$ | 12 $-3a(12a^2b^7) = -36a^3b^7$ | F-G a^4b^4 |
| | | I-W $30x^9$ | | C-U $14a^4b^9$ |
| | | H-A x^9 | | I-V $-36a^6b^3$ |

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| $-5m^{11}t^2 \leftarrow$ | 13 $(5m^3)(-m^8t^2)$ | R-L $16m^5t^8$ | 19 $(n^2)^3 = n^6$ | F-B $81n^{18}$ |
| $-60m^4t^6 \leftarrow$ | 14 $(-4m^4t)(15t^5)$ | E-I $-5m^{11}t^2$ | 20 $(-n^5)^2 = n^{10}$ | D-V $-8n^{12}$ |
| $77m^5t^{10} \leftarrow$ | 15 $(11m^4t^9)(7mt)$ | J-D $6m^5t^{10}$ | 21 $(5n^8)^2 = 25n^{16}$ | C-N $25n^{16}$ |
| $6m^6t^5 \leftarrow$ | 16 $(3m^2)(m^3t^3)(2mt^2)$ | E-T $77m^5t^{10}$ | 22 $(-2n^4)^3 = -8n^{12}$ | E-L $81n^{36}$ |
| $16m^5t^8 \leftarrow$ | 17 $(-8mt^4)(-2t)(m^4t^3)$ | D-M $-60m^8t^6$ | 23 $(10n)^3 = 1000n^3$ | N-D $-8n^{16}$ |
| $-60m^8t^6 \leftarrow$ | 18 $3t^5(-mt)(20m^7)$ | S-N $6m^6t^5$ | 24 $(-3n^9)^4 = +81n^{36}$ | E-R n^{10} |
| | | B-A $16m^6t^3$ | | K-E $1000n^3$ |
| | | C-S $-60m^4t^6$ | | |

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|------------------------------|------------------------------|----------------------------------|------------------------------------|-------------------------------|
| $9x^4y^6 \leftarrow$ | 25 $(3x^2y^3)^2$ | K-U $81x^{20}y^6$ | 31 $2kd(5k^2d)^2$ | J-R $-81k^2d^{11}$ |
| $125x^{12}y^3 \leftarrow$ | 26 $(5x^4y^3)^3$ | A-S $9x^4y^6$ | 32 $-d(9kd^5)^2$ | K-T k^8d^6 |
| $49x^{10}y^4 \leftarrow$ | 27 $(-7x^5y^2)^2$ | E-L $-32x^{10}y^{15}$ | 33 $(kd)^2(kd^2)$ | C-S k^3d^4 |
| $-64x^3y^{24} \leftarrow$ | 28 $(-4xy^8)^3$ | D-R $49x^{12}y^4$ | 34 $(2k)^4(-k^2)(-d)^2$ | H-B $-81kd^7$ |
| $-32x^{10}y^{15} \leftarrow$ | 29 $(-2x^2y^3)^5$ | H-E $125x^{12}y^3$ | 35 $(kd^8)(kd)^8(k^8d)$ | N-I $k^{17}d^{17}$ |
| $81x^{28}y^8 \leftarrow$ | 30 $(3x^7y^2)^4$ | J-N $-64x^3y^{24}$ | 36 $(-k^2d)^5(-k^2d^3)$ | A-N $50k^5d^3$ |
| | | C-T $81x^{28}y^8$ | | P-D $k^{15}d^{12}$ |
| | | D-G $49x^{10}y^4$ | | C-A $-16k^6d^2$ |

a b c d e f g h i j k l m n o p q
 A R U B B A D U B D U D

11.3

$(31) 2kd(5k^2d)^2 = 2kd(25k^4d^2) = 50k^5d^3$	$(33) (kd)^2(kd^2) = k^2d^2(kd^2) = k^3d^4$	$(35) (kd^8)(kd)^8(k^8d) = (kd^8)(k^8d^8)(k^8d) = k^{24}d^{24}$
$(32) -d(9kd^5)^2 = -d(81k^2d^{10}) = -81k^2d^{11}$	$(34) (2k)^4(-k^2)(-d)^2 = 16k^4(-k^2)(d^2) = -16k^6d^2$	$(36) (-k^2d)^3(-k^2d^3) = (-k^6d^3)(-k^2d^3) = k^8d^6$