How Does the King's Son Write?

Simplify each expression. For each set of exercises, there is one extra answer. Write the letter of this answer in the corresponding box at the right.

5	1	8	6	2	4	7	3

1

a. $9x \cdot x^5$

b. $5x^2 \cdot 4x^3$

c. $(-8x^4)(-3x)$

d. $(6x^4)(-x^6)$

(K) $24x^5$
(O) $-6x^{10}$
(A) $9x^6$
(E) $24x^{10}$
(L) $20x^5$

2

a. $(7n^3)^2$

b. $(-4n^8)^3$

c. $(5n^4)^4$

d. $(-2n^2)^6$

(W) $64n^{12}$
(I) $625n^{12}$
(U) $-64n^{24}$
(B) $49n^6$
(D) $625n^{16}$

3

a. $(4m^7d^2)^2$

b. $(-9m^4d^3)^2$

c. $(-m^2d^5)^3$

d. $(-3md^9)^4$

(T) $16m^{14}d^4$
(G) $-m^6d^{15}$
(V) $81m^8d^6$
(E) m^6d^8
(R) $81m^4d^{36}$

4

a. $3xy(5x^2y)^2$

b. $(-7y)(2xy^2)^3$

c. $x^8y^3(-10x^5y^4)^2$

d. $(xy^4)^4(-9y^3)$

(S) $-56x^3y^7$
(N) $100x^{20}y^7$
(C) $75x^5y^3$
(F) $-9x^4y^{19}$
(T) $100x^{18}y^{11}$

5

a. $(5p^2q^3)(p^5q)(2p^4q)$

b. $(2p^5q^2)(9p^3)(-4p^8q)$

c. $(-18q^6)(4p^4q)(-pq^3)$

d. $3pq(-2q^5)(12p^9q^2)$

(H) $72p^{10}q^{12}$
(B) $-72p^{16}q^3$
(G) $10p^{11}q^5$
(L) $72p^5q^{10}$
(M) $-72p^{10}q^8$

6

a. $(8ut^3)^2(u^2t)^2$

b. $(u^4t)^3(-2ut^5)^4$

c. $(-ut^3)(-ut)^3$

d. $(-u^2t)^4(-u^2t^4)$

(W) $-u^{10}t^8$
(T) $64u^6t^8$
(F) u^4t^6
(S) $16u^{16}t^{23}$
(R) $-u^4t^8$

7

a. $(3ab^2c^5)^3(a^3b^8c)^2$

b. $(-bc^5)(a^4b^3c^9)(-ab^8)$

c. $(-2ab)^3(ac^3)(11bc^2)$

d. $(a^2bc)^5(a^2bc^5)$

(D) $27a^9b^{22}c^{17}$
(C) $-88a^4b^3c^6$
(G) $a^{12}b^6c^{10}$
(T) $-88a^4b^4c^5$
(K) $a^5b^{12}c^{14}$

8

a. $\left(\frac{1}{2}k^8v^3\right)^2(60kv^4)$

b. $(10k^5v)^3\left(\frac{1}{5}v^3\right)^2$

c. $-(k^9v^2)(-15v^6)$

d. $(-kv)^2(-kv)^3(-kv)^4$

(P) $-15k^9v^9$
(T) $40k^{15}v^9$
(W) $15k^{17}v^{10}$
(B) $-k^9v^9$
(S) $15k^9v^8$

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