Where Do Tadpoles in the Pawn Shop Come From ?

Factor each polynomial below as the product of its greatest monomial factor and another polynomial. Find your answer and notice the letter next to it. Write this letter in each box that contains the number of that exercise.

(1) $3x^2 + 18x + 9$
(2) $2x^2 + 10x + 12$
(3) $7x^2 + 14x + 35$
(4) $5x^2 - 20x + 10$
(5) $6x^2 + 9x - 21$

Answers:

(D) $3(2x^2 + 3x - 7)$
(L) $3(2x^2 + 4x - 5)$
(A) $3(x^2 + 6x + 3)$
(P) $5(x^2 - 2x + 5)$
(F) $5(x^2 - 4x + 2)$
(O) $2(x^2 + 5x + 6)$
(B) $7(x^2 + x + 6)$
(E) $7(x^2 + 2x + 5)$

(6) $n^3 + n^2 + n$
(7) $n^4 - n^3 + n^2$
(8) $2n^3 - n^2 - 5n$
(9) $3n^2 + 9n$
(10) $7n^2 - 28n$

Answers:

(S) $n(2n^2 - 2n - 6)$
(O) $n^2(n^2 - n + 1)$
(I) $7n(n + 5)$
(F) $3n(n + 3)$
(E) $n^2(n^2 - 2n + 3)$
(A) $n(n^2 + n + 1)$
(M) $n(2n^2 - n - 5)$
(R) $7n(n - 4)$

(11) $4k^3 - 32k$
(12) $6k^3 + 10k^2$
(13) $5k^3 + 15k^2 + 10k$
(14) $4k^3 - 20k^2 + 4$
(15) $4k^4 + 18k^3 - 6k^2$

Answers:

(P) $4(k^3 - 5k^2 + 1)$
(R) $5k(k^2 + 3k + 2)$
(S) $4(k^3 - 8k^2 + 2)$
(G) $4k(k^2 - 8)$
(L) $5k(k^2 + 4k + 1)$
(W) $2k^2(2k^2 + 9k - 3)$
(T) $2k^2(3k - 9)$
(N) $2k^2(3k + 5)$

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

OBJECTIVE 3-e: To factor a polynomial as the product of its greatest monomial factor and another polynomial (polynomials in one variable).