



How Can Fishermen Save Gas?

Factor each polynomial below. Find one of the factors in **each** column of binomials. Notice the letter next to one factor and the number next to the other. Write the letter in the box at the bottom of the page that contains the matching number.

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|-----------------------------------|----------------|----------------|
| (1) $4n^2 - 49$ | (3) $(n + 1)$ | (O) $(n - 3)$ |
| (2) $n^2 + 8n + 12$ $(n+2)(n+6)$ | (11) $(n + 2)$ | (G) $(2n - 7)$ |
| (3) $n^2 - 9n + 20$ | (2) $(n + 8)$ | (P) $(n - 5)$ |
| (4) $n^2 + 16n + 64$ $(n+8)^2$ | (9) $(2n + 7)$ | (S) $(3n - 5)$ |
| (5) $n^2 + 2n - 15$ | (4) $(n + 5)$ | (Y) $(n + 8)$ |
| (6) $3n^2 - 8n + 5$ $(3n-5)(n-1)$ | (18) $(n - 1)$ | (K) $(3n - 1)$ |
| | (14) $(n - 4)$ | (A) $(n + 6)$ |

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|--------------------------------------|-----------------|----------------|
| (7) $a^2 + 4a - 21$ | (1) $(a - 5)$ | (G) $(2a + 1)$ |
| (8) $5a^2 + 9a - 2$ $(5a-1)(a+2)$ | (13) $(a + 7)$ | (B) $(a - 6)$ |
| (9) $2a^2 + 11a + 15$ | (5) $(5a + 1)$ | (P) $(a - 3)$ |
| (10) $1 - 9a^2$ | (7) $(a + 2)$ | (O) $(a + 3)$ |
| (11) $a^2 - 11a + 30$ | (15) $(a - 1)$ | (I) $(5a - 1)$ |
| (12) $10a^2 - 3a - 1$ $(5a+1)(2a-1)$ | (8) $(1 - 3a)$ | (R) $(2a - 1)$ |
| | (16) $(2a + 5)$ | (N) $(1 + 3a)$ |

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|-------------------------------------|--------------------------|----------------|
| (13) $8u^2 + 19u + 6$ | (10) $(u + 3)$ | (M) $(u + 1)$ |
| (14) $25u^2 - 20u + 4$ $(5u+2)^2$ | (12) $(2u + 9)$ | (B) $(2u + 1)$ |
| (15) $3u^2 - 11u - 14$ | (17) $(u - 3)$ <i>or</i> | (O) $(8u + 3)$ |
| (16) $u^2 - 4u - 21$ $(u-7)(u+3)$ | (3) $(5u - 2)$ | (L) $(2u - 1)$ |
| (17) $6u^2 + 17u - 10$ | (6) $(3u - 14)$ | (C) $(u - 7)$ |
| (18) $2u^2 + 5u - 18$ $(2u+9)(u-2)$ | (15) $(u + 2)$ | (R) $(u - 2)$ |
| | (17) $(3u + 10)$ | (F) $(5u - 2)$ |

$$\begin{array}{r} 2u^2 - 4u + 9u - 18 \\ \underline{2u^2 - 4u} \\ 9u - 18 \\ \underline{9u - 18} \\ 0 \end{array}$$

$$2u^2 - 4u + 9u - 18 = (2u+9)(u-2)$$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Y	F		R		I	N		C	A	R						S