

## Polynomial Multiplicaiton

Date \_\_\_\_\_ Period \_\_\_\_\_

**Find each product.**

1)  $6n(6n + 3)$

- A)  $15n^3 - 35n^2$  (Yellow)
- B)  $8n + 10$  (Red)
- C)  $36n^2 + 18n$  (Black)
- D)  $28n - 4$  (Purple)

2)  $8(6x - 2)$

- A)  $48x - 16$  (Red)
- B)  $25x^2 + 25x$  (White)
- C)  $16x^3 - 16x^2$  (Yellow)
- D)  $25x - 35$  (Black)

3)  $7(6m - 2)$

- A)  $42m - 14$  (Yellow)
- B)  $3m^2 - 18m$  (Silver)
- C)  $56m + 8$  (Green)
- D)  $56m^2 - 40m$  (White)

4)  $(4a - 1)(-7a + 4)$

- A)  $-28a^2 + 9a + 4$  (White)
- B)  $-28a^2 - 9a + 4$  (Orange)
- C)  $-28a^2 + 23a - 4$  (Green)
- D)  $-28a^2 - 4$  (Red)

5)  $(-5n + 6)(-2n - 3)$

- A)  $10n^2 + 27n + 18$  (White)
- B)  $10n^2 - 18$  (Pink)
- C)  $10n^2 + 3n - 18$  (Red)
- D)  $10n^2 - 27n + 18$  (Yellow)

6)  $(3a + 6)(-8a + 8)$

- A)  $-24a^2 + 72a - 48$  (Black)
- B)  $-24a^2 - 72a - 48$  (Red)
- C)  $-24a^2 - 24a + 48$  (Brown)
- D)  $-24a^2 + 48$  (Purple)

7)  $(-6r + 1)(-r + 3)$

- A)  $-7r^2 - 25r + 12$  (Orange)
- B)  $-7r^2 - 31r - 12$  (Green)
- C)  $6r^2 - 19r + 3$  (Red)
- D)  $6r^2 - 17r - 3$  (Yellow)

8)  $(8n + 5)(-2n + 1)$

- A)  $20n^2 - 60n + 40$  (Yellow)
- B)  $20n^2 + 20n - 40$  (Red)
- C)  $-16n^2 - 2n + 5$  (Silver/grey)
- D)  $20n^2 + 40$  (Green)

9)  $(-3k - 3)(5k^2 + 3k - 7)$

- A)  $-49k^3 + 56k^2 + 41k - 40$  (Purple)
- B)  $-2k^3 - 22k^2 - 54k - 18$  (Orange)
- C)  $4k^3 - 9k^2 - 3k + 10$  (Green)
- D)  $-15k^3 - 24k^2 + 12k + 21$  (Red)

10)  $(-3k - 8)(8k^2 + 7k + 1)$

- A)  $24k^3 + 50k^2 + 46k + 56$  (Brown)
- B)  $-24k^3 - 85k^2 - 59k - 8$  (Green)
- C)  $18k^3 + 3k^2 - 13k + 2$  (Yellow)
- D)  $8k^3 - 14k^2 + 22k - 16$  (Red)

11)  $(-4n + 3)(-5n^2 - 2n + 3)$

- A)  $-28n^3 - 60n^2 + 24n + 64$ (Black)
- B)  $16n^3 - 34n^2 + 23n - 5$ (Orange)
- C)  $20n^3 - 7n^2 - 18n + 9$ (Brown)
- D)  $42n^3 - 59n^2 + 48n - 16$ (Green)

12)  $(-3b - 1)(-3b^2 - 3b - 1)$

- A)  $15b^3 + 7b^2 - 14b - 8$ (Black)
- B)  $-16b^3 - 20b^2 - 30b - 12$ (Green)
- C)  $-9b^3 - 18b^2 - 17b - 56$ (Purple)
- D)  $9b^3 + 12b^2 + 6b + 1$ (Light Brown/Tan)

13)  $(-4r + 8)(8r^2 + 6r - 4)$

- A)  $-32r^3 + 40r^2 + 64r - 32$ (Black)
- B)  $8r^3 + 62r^2 + 37r - 35$ (Grey)
- C)  $20r^3 - 59r^2 + 62r - 24$ (Green)
- D)  $-7r^3 - 31r^2 - 13r - 4$ (Brown)