1. Multiply the polynomials. $(-5)(3a^2 - 3a - 8)$

A. $-15a^2 + 19a + 40$

B. $-15a^2 + 15a + 40$

C. $-6a^3 - 15a^2 + 15a + 40$

D. $-20a^2 + 15a + 40$

E. $-15a^2 + 15a + 46$

2. Multiply the polynomials. $(-8y^2 - 5y + 2)(4y^2 - 9y - 1)$

A. $-32y^4 + 52y^3 + 61y^2 - 19y - 2$

B. $-32y^4 + 52y^3 + 61y^2 - 13y + 1$

C. $-32y^4 + 52y^3 + 65y^2 - 13y - 2$

D. $-32y^4 + 57y^3 + 61y^2 - 13y - 2$

E. $-32y^4 + 52y^3 + 61y^2 - 13y - 2$

3. Multiply the polynomials. $(-9q^2 - 7)(-2q^2 - 8q - 4)$

A. $18q^4 + 72q^3 + 50q^2 + 56q + 33$

B. $18q^4 + 71q^3 + 50q^2 + 56q + 28$

C. $18q^4 + 72q^3 + 50q^2 + 52q + 28$

D. $18q^4 + 72q^3 + 50q^2 + 56q + 28$

E. $18q^4 + 72q^3 + 45q^2 + 56q + 28$

4. Multiply the polynomials. $(-9w + 2)(5w^2 - 3)$

A. $-45w^3 + 7w^2 + 27w - 6$

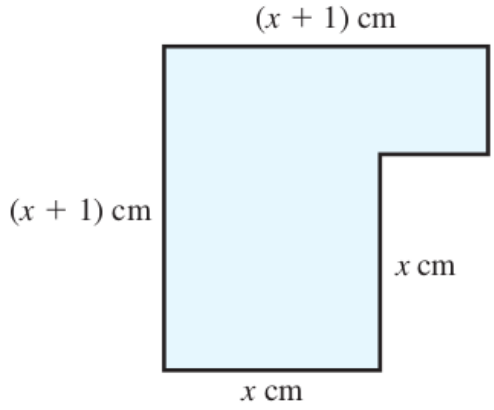
B. $-45w^3 + 10w^2 + 27w - 6$

C. $-45w^3 + 10w^2 + 27w - 3$

D. $-45w^3 + 10w^2 + 26w - 6$

E. $-50w^3 + 10w^2 + 27w - 6$

5. Write a polynomial for the area of the figure below.



A. $x^2 + 2x - 1$

B. $x^2 + 2x + 1$

C. $x^2 - 2x - 1$

D. $x^2 + x - 1$

E. $x^2 + x + 1$

6. Multiply the polynomials. $(7\phi^2 - 6\phi)(-2\phi + 2)$

A. $-14\phi^3 + 26\phi^2 - 12\phi$

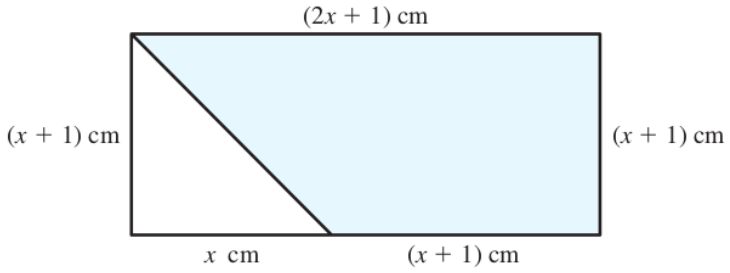
B. $-14\phi^3 + 26\phi^2 - 9\phi$

C. $-14\phi^3 + 26\phi^2 - 12\phi - 1$

D. $-14\phi^3 + 20\phi^2 - 12\phi$

E. $-10\phi^3 + 26\phi^2 - 12\phi$

7. Write a polynomial for the area of the figure below.



A. $\frac{3x^2}{2} + \frac{5x}{2} + 1$

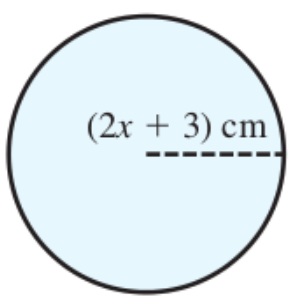
B. $\frac{3x^2}{2} + \frac{5x}{4} + 2$

C. $\frac{3x^2}{4} + \frac{5x}{2} + 1$

D. $\frac{3x^2}{2} + \frac{5x}{2} + 2$

E. $\frac{3x^2}{2} + \frac{5x}{4} + 1$

8. Write a polynomial for the area of the figure below.



A. $4\pi x^2 + 12x + 9$

B. $4\pi x^2 + 12\pi x + 9$

C. $4\pi x^2 + 12x + 9\pi$

D. $4x^2 + 12x + 9$

E. $4\pi x^2 + 12\pi x + 9\pi$