

Math 1201 Midterm Review
Factors and Products: Sec 3.3 to 3.8

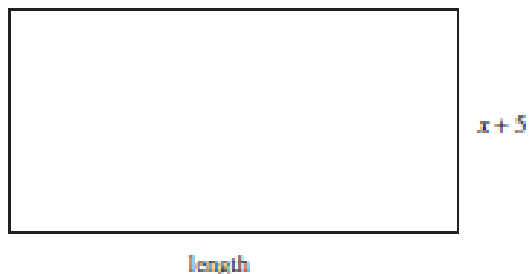
1. Expand: $(x + 1)(3x - 2)$

- A) $3x^2 - 2$ B) $4x - 1$ C) $3x^2 - x - 2$ D) $3x^2 + x - 2$

2. Factor completely: $12a^2 + 18a$

- A) $2a(6a + 9)$ B) $2(6a^2 + 9a)$
C) $6a(2a + 3)$ D) $6(2a^2 + 3a)$

3. Given that the area of the rectangle below is $2x^2 + 9x - 5$, determine the length of the rectangle.



- A) $2x - 1$
B) $2x + 1$
C) $2x + 9$
D) $2x^2 + 8x - 10$

4. Factor completely: $k^2 - 2k - 24$

- A) $(k - 6)(k - 4)$ B) $(k - 6)(k + 4)$
C) $(k + 6)(k - 4)$ D) $(k + 6)(k + 4)$

5. Which equation is represented by the positive algebra tiles displayed below?

- A) $x^2 + 12x + 20$
B) $x^2 + 11x + 18$
C) $(x + 9)(x + 2) = x^2 + 11x + 18$
D) $(x + 10)(x + 2) = x^2 + 12x + 20$



6. Expand:

- A) $(4x + 3)(2x - 7)$ B) $-3(x - 7)(x + 4)$ C) $3x(2x^2 - 3x - 1)$

7. Factor completely: $6x^2 - 13x - 5$

- A) $(3x + 1)(2x + 5)$ B) $(3x + 1)(2x - 5)$
C) $(3x - 1)(2x + 5)$ D) $(3x - 1)(2x - 5)$

8. Factor each completely:

- A) $14a^3b^2 - 21a^3b + 14a^4b^3$ B) $x^2 + 4x - 32$ C) $6x^2 - 19x - 7$
D) $64x^2 + 208x + 169$ E) $16x^2 + 24x + 9$ F) $10x^2 - 18x - 4$