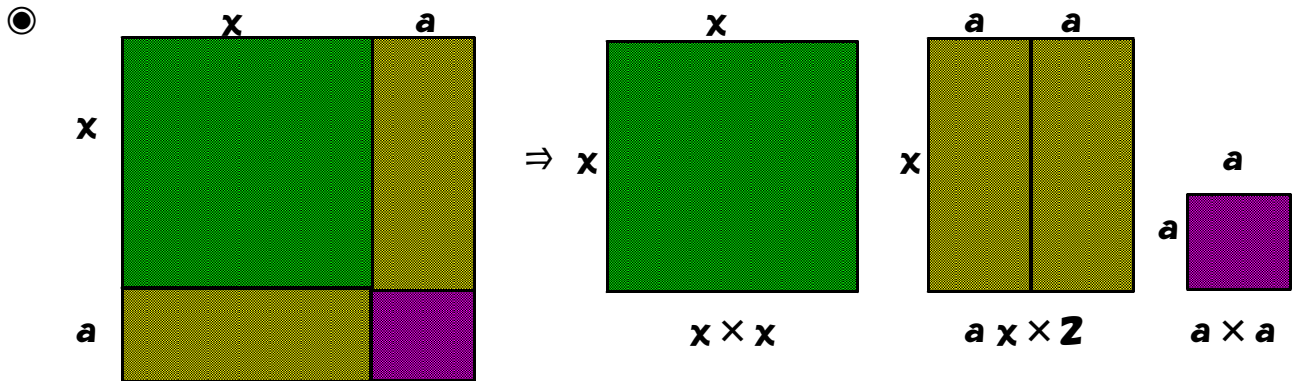


多項式の計算 (乗法公式②③) No.5

乗法公式 $(x + a)^2 = x^2 + 2ax + a^2$



1. 次の式を展開しなさい。

例 $(x + 3)^2 = x^2 + 2 \times 3x + 3^2$
 $= x^2 + 6x + 9$

① $(x + 2)^2$

② $(x + 5)^2$

③ $(x + 4)^2$

乗法公式 ③ $(x - a)^2 = x^2 - 2ax + a^2$

例 $(x - 4)^2 = x^2 + 2 \times (-4)x + (-4)^2$
 $= x^2 - 8x + 16$

④ $(x - 5)^2$

⑤ $(x - 6)^2$

⑥ $(x - 3)^2$

<答え>

① $(x + 2)^2$
 $= x^2 + 2 \times 2x + 2^2$
 $= x^2 + 4x + 4$

② $(x + 5)^2$
 $= x^2 + 2 \times 5x + 5^2$
 $= x^2 + 10x + 25$

③ $(x + 4)^2$
 $= x^2 + 2 \times 4x + 4^2$
 $= x^2 + 8x + 16$

④ $(x - 5)^2$
 $= x^2 + 2 \times (-5)x + (-5)^2$
 $= x^2 - 10x + 25$

⑤ $(x - 6)^2$
 $= x^2 + 2 \times (-6)x + (-6)^2$
 $= x^2 - 12x + 36$

⑥ $(x - 3)^2$
 $= x^2 + 2 \times (-3)x + (-3)^2$
 $= x^2 - 6x + 9$