



基本功专项训练(八)

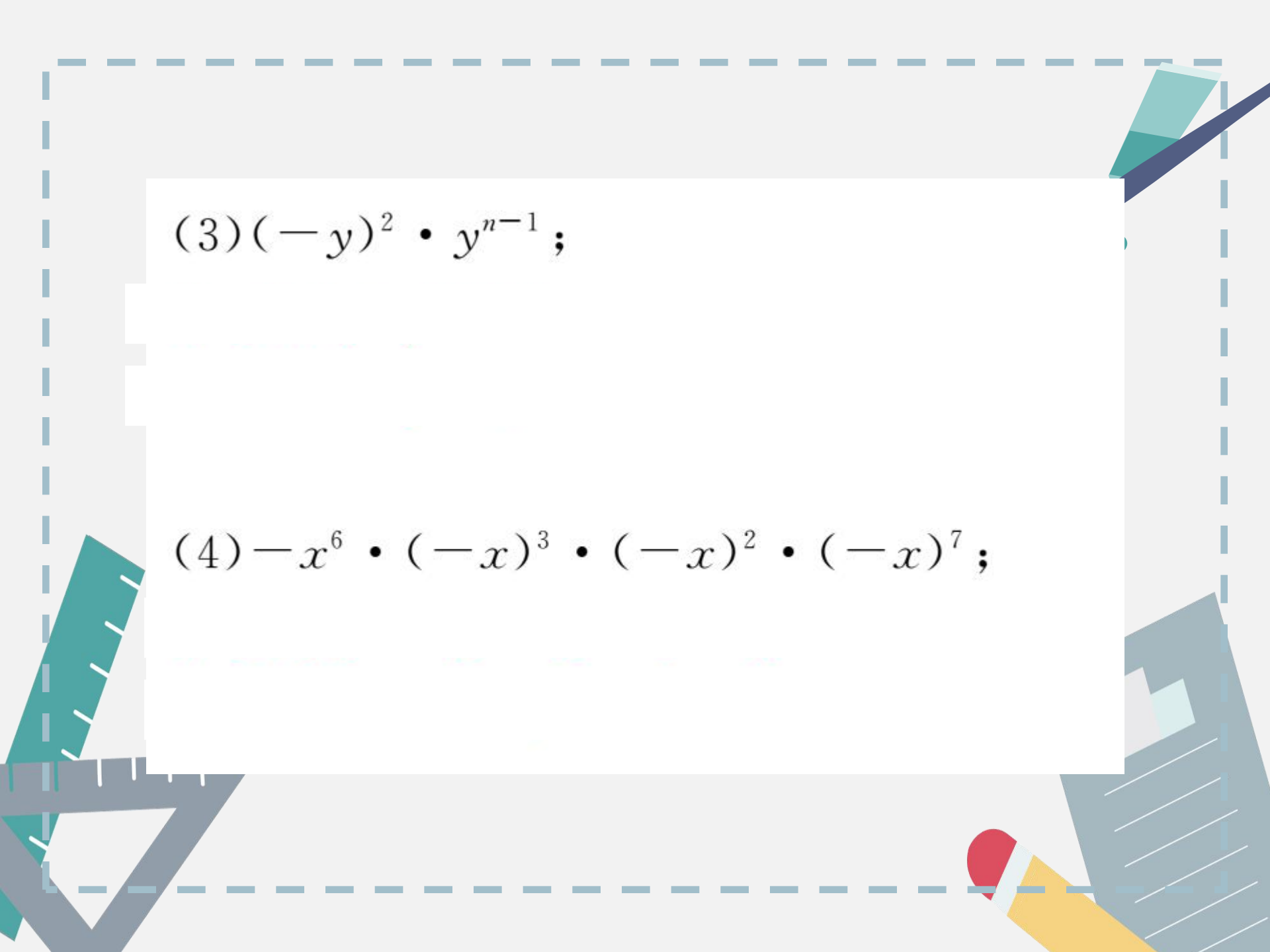
运用幂的运算法则进行计算



1. 计算：

$$(1) x \cdot x^5 \cdot x^6 ;$$

$$(2) (x-3y)^2 \cdot (x-3y)^5 ;$$


$$(3) (-y)^2 \cdot y^{n-1};$$

$$(4) -x^6 \cdot (-x)^3 \cdot (-x)^2 \cdot (-x)^7;$$


$$(5) (m-n) \cdot (n-m)^3 \cdot (n-m)^4.$$

2. 计算：

$$(1) (-x^5)^6 + (-x^6)^5 - (x^{10})^3;$$


$$(2) (a^{2n-1})^3 \cdot (a^{3n+1})^2 ;$$

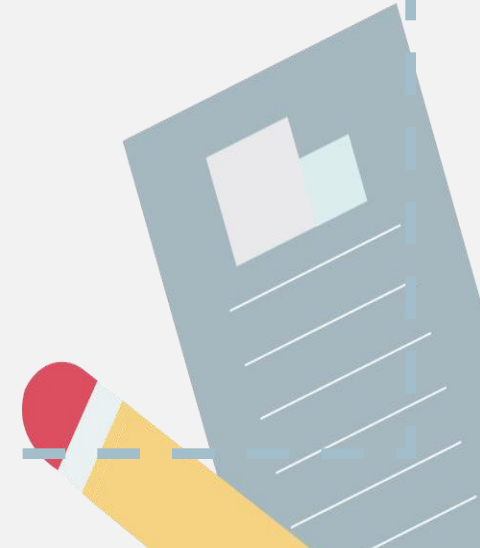

$$(3) (-a^2)^3 \cdot a^3 + (-a)^2 \cdot a^7 - 5(a^3)^3 ;$$



(4) $[(a-2b)^2]^m \cdot [(2b-a)^3]^n$ (m, n 是正整数).

3. 计算:

(1) $(-3a)^2 \cdot a^4 + (-2a^2)^3$;

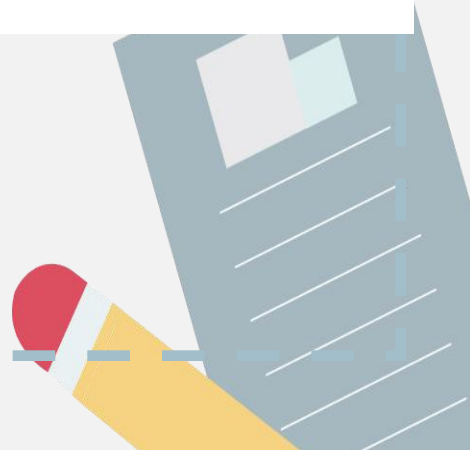



$$(2) (-2a)^6 - (-3a^3)^2 - [-(2a)^2]^3;$$

$$(3) (a^2b^6)^n + 5(-a^nb^{3n})^2 - 3[(-ab^3)^2]^n.$$

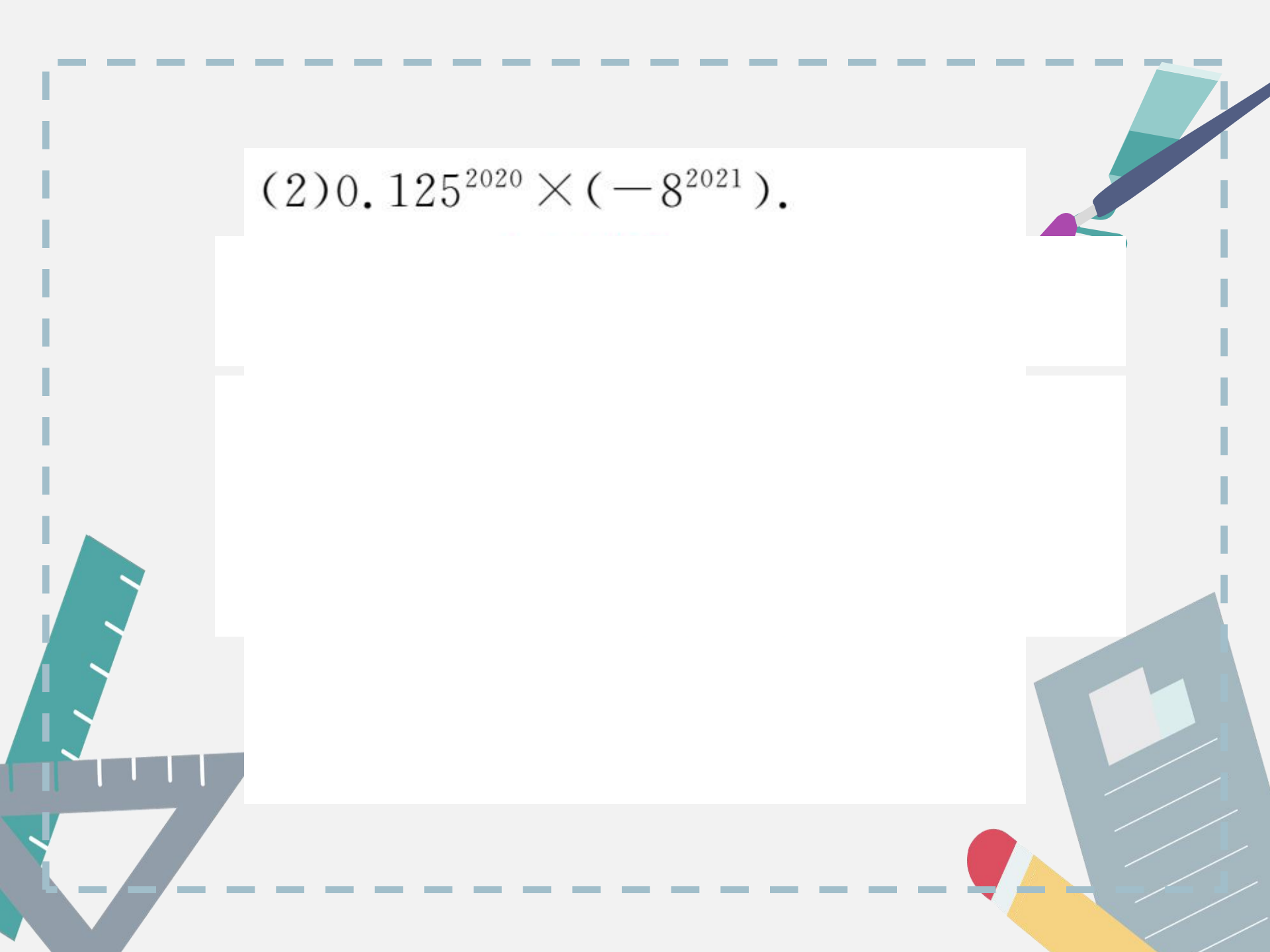


4. 若 $x^{3m} = 4$, $y^{3n} = 5$, 求 $(x^{2m})^3 + (y^n)^3 - x^{2m} \cdot y^n \cdot x^{4m} \cdot y^{2n}$ 的值.



5. 用简便方法计算：

$$(1) \left(-1 \frac{2}{5}\right)^8 \times 0.25^5 \times \left(\frac{5}{7}\right)^8 \times (-4)^5;$$


$$(2) 0.125^{2020} \times (-8^{2021}).$$