

Do Now

1)

124080005\_4

Simplify:

$$\frac{4^8}{4^{-4}}$$

**A**  $4^{-32}$

**B**  $4^{-2}$

**C**  $4^4$

**D**  $4^{12}$

*Handwritten work:*  
 $4^{8-(-4)}$   
 $4^{8+4}$   
 $4^{12}$

Rule: keep the base and subtract the exponents

2)

124080011\_2

Evaluate:

$$(2.4 \times 10^4)(4.5 \times 10^3)$$

*Handwritten work:*  
 $(2.4 \cdot 4.5) \times (10^4 \cdot 10^3)$   
 $10.8 \times 10^7$   
 $1.08 \times 10^8$

**A**  $1.08 \times 10^7$

**B**  $1.08 \times 10^8$

**C**  $1.08 \times 10^{12}$

**D**  $1.08 \times 10^{13}$

Rule: Exponents do NOT have to be the same