

Course: SAT ACT Prep

Lesson Number: 1

Subject: Mathematical Reasoning

Reference Number: 1000-7

Topic: Arithmetic

Subtopic: Rules of Exponents

<https://youtube.com/c/MrMattTheTutor>

Document: Quick Drill A Resource



1) What is the value of  $\frac{((A^3)(A^2))^3}{((A^4)(A^3))^2}$  ?

- a)  $A^1$
- b)  $A^2$
- c)  $A^3$
- d)  $A^4$

2) What is the value of  $\frac{((A^{-6})(A^2))^3}{((A^{-5})(A^3))^2}$  ?

- a)  $A^{-2}$
- b)  $A^{-4}$
- c)  $A^{-6}$
- d)  $A^{-8}$

3) What is the value of  $\frac{((A^8)(A^3))^{-5}}{\left(\frac{A^3}{A^9}\right)^{10}}$  ?

- a)  $A^5$
- b)  $A^{10}$
- c)  $A^{15}$
- d)  $A^{20}$

4) What is the value of  $\frac{((A^5)(B^6)(C^4))^2}{((A^5)(B^3))^4} \times \frac{((A^2)(B^4)(C^4))^3}{((A^2)(B^3)(C^5))^2}$  ?

- a)  $\frac{(B^6)(C^{10})}{(A^8)}$
- b)  $\frac{(A^8)}{(B^6)(C^{10})}$
- c)  $\frac{(B^3)(C^5)}{(A^4)}$
- d)  $\frac{(A^4)}{(B^3)(C^5)}$

5) What is the value of  $\frac{((A^8)(B^3)(C^5))^2}{((A^8)(B^3))^5} \times \frac{((A^2)(B^5)(C^5))^3}{((A^2)(B^3)(C^8))^2}$ ?

a)  $\frac{(C^9)}{(A^{22})}$

b)  $\frac{(A^{22})}{(C^9)}$

c)  $\frac{(C^5)}{(A^4)}$

d)  $\frac{(A^4)}{(C^5)}$

6) What is the value of  $\frac{((A^2)(B^6)(C^7))^2}{((A^2)(B^4))^7} \times \frac{((A^2)(B^7)(C^7))^4}{((A^2)(B^4)(C^2))^2}$ ?

a)  $\frac{(B^6)(C^{10})}{(A^8)}$

b)  $\frac{(A^8)}{(B^6)(C^{10})}$

c)  $\frac{(C^{38})}{(A^6)(B^4)}$

d)  $\frac{(B^4)(C^{38})}{(A^6)}$