

**Solve the following questions:**

1	$4^6 \times 4^7$	
2	$3^{-5} \times 3^7$	
3	$5^6 \times 5^{-6}$	
4	$9^6 \div 9^3$	
5	$12^{-8} \div 12^{-2}$	
6	$12^{-8} \div 12^2$	
7	$\frac{15^{10}}{15^5}$	
8	$\frac{5^6 \times 5^7}{5^8 \times 5}$	
9	$(5a^{-2})^2$	
10	$5a^6b^7 \times 6a^5b^{-4}$	
11	$8^{-2}$	
12	$(2^2)^3$	
13	$15^1$	
14	$12^0$	
15	$\left(\frac{2}{3}\right)^2$	
16	$(4)^{\frac{1}{2}}$	
17	$(27)^{\frac{1}{3}}$	
18	$(5)^2 (5)^4$	
19	$(8)^{\frac{2}{3}}$	
20	$(125)^{\frac{2}{3}}$	

**Answer Key:**

1	$4^{13}$
2	$3^2$
3	$5^0 = 1$
4	$9^3$
5	$12^{-8+2} = 12^{-6}$
6	$12^{-8-2} = 12^{-10}$
7	$15^5$
8	$\frac{5^{13}}{5^9} = 5^4$
9	$25a^{-4}$
10	$30a^{11}b^3$
11	$\frac{1}{8^2} = \frac{1}{64}$
12	$2^6$
13	15
14	1
15	$\frac{4}{9}$
16	$\sqrt[2]{4} = 2$
17	$\sqrt[3]{27} = 3$
18	$(5)^6$
19	$(\sqrt[3]{8})^2 = 2^2 = 4$
20	$(\sqrt[3]{125})^2 = 5^2 = 25$