Name: _____

Exponent Rules Product and Quotient

Simplify. Write each answer as a single power.

1. $10^6 \div 10^2 =$ _____
2. $2^{10} \div 2^5 =$ _____
3. $m^{11} \div m^6 =$ _____
4. $10^{10} \div 10^7 =$ _____
5. $x^{11} \div x^4 =$ _____
6. $m^8 \div m^3 =$ _____
7. $5^5 \cdot 5^5 =$ _____
8. $10^8 \cdot 10^9 =$ _____
9. $5^2 \cdot 5^7 =$ _____
10. $10^7 \cdot 10^5 =$ _____
11. $5^{10} \div 5^4 =$ _____
12. $5^7 \div 5^4 =$ _____
13. $m^{11} \div m^9 =$ _____
14. $a^9 \div a^2 =$ _____
15. $m^4 \cdot m^9 =$ _____
16. $3^9 \div 3^3 =$ _____
17. $3^6 \div 3^2 =$ _____
18. $10^{11} \div 10^5 =$ _____
19. $y^{10} \div y^3 =$ _____
20. $2^9 \div 2^5 =$ _____

Name: **ANSWER KEY**

Exponent Rules Product and Quotient

Simplify. Write each answer as a single power.

1. $10^6 \div 10^2 =$ 10^4
2. $2^{10} \div 2^5 =$ 2^5
3. $m^{11} \div m^6 =$ m^5
4. $10^{10} \div 10^7 =$ 10^3
5. $x^{11} \div x^4 =$ x^7
6. $m^8 \div m^3 =$ m^5
7. $5^5 \cdot 5^5 =$ 5^{10}
8. $10^8 \cdot 10^9 =$ 10^{17}
9. $5^2 \cdot 5^7 =$ 5^9
10. $10^7 \cdot 10^5 =$ 10^{12}
11. $5^{10} \div 5^4 =$ 5^6
12. $5^7 \div 5^4 =$ 5^3
13. $m^{11} \div m^9 =$ m^2
14. $a^9 \div a^2 =$ a^7
15. $m^4 \cdot m^9 =$ m^{13}
16. $3^9 \div 3^3 =$ 3^6
17. $3^6 \div 3^2 =$ 3^4
18. $10^{11} \div 10^5 =$ 10^6
19. $y^{10} \div y^3 =$ y^7
20. $2^9 \div 2^5 =$ 2^4