

**Properties of Exponents**  
Emphasis on Negative Exponents

Simplify each of the following:

1. $a^{-5}$	2. $\frac{1}{f^{-3}}$
3. $b^{-2}$	4. $\frac{1}{g^{-15}}$
5. $c^{-1}$	6. $\frac{1}{h^{-12}}$
7. $d^{-7}$	8. $\frac{1}{j^{-11}}$
9. $e^{-8}$	10. $\frac{1}{k^{-13}}$

11. $l^{-14}$	12. $\left(\frac{1}{r}\right)^{-7}$
13. $m^{-23}$	14. $\left(\frac{1}{t}\right)^{-17}$
15. $n^{-2}$	16. $\left(\frac{1}{x}\right)^{-20}$
17. $p^{-3}$	18. $\left(\frac{1}{z}\right)^{-5}$
19. $q^{-1}$	20. $\left(\frac{1}{y}\right)^{-6}$