Simplifying Algebraic Expressions Using Properties of Exponents

Answer Key

1.	Without a calculator, compute the exact value of each of the following.		
	a. 1/9	b. 125	c. 9
	d. 1/4	e. 18	f. 2
	g. 2/3	h. 20	i. 1
2.	Simplify each of the following expressions as much as possible.		
	a. $a^{5/3}$	b. b^2/a	c. y^2z^4/x^2
	d. $8pq^3r^6$	e. $1/s^3$	f. xy^4
3.	Simplify each of the following as much as possible. Do not leave negative exponents in your answer.		
	a. $1/12^{5/2}$	b. $125xy^4$	c. 216
	d. $c^3/(a^2b)$	e. 27	f. $b^2/3a^4$
4.	Rewrite each of the following using fractional exponents instead of radicals and then simplify as much as possible.		
	a. $x^{3/2}$	b. $y^{2/3}z^{1/3}$	c. $x^{1/2}y^{1/6}$
	d. x^2	e. $x^{1/4}$	f. $x^{7/9}$