

**Part A: Think Ahead -- Reversibility Among Forms Key**

One of the most important concepts in mathematics is **reversibility** meaning processes that can be reversed to return to a previous form or step. You have already seen many examples of reversibility in your study of mathematics. The table below shows familiar examples of moving back and forth between equivalent expressions and numbers.

**Complete the blanks with an equivalent form as indicated. No calculators allowed.**

1. Factored Form:	$4(x - 3)$	Simplified Form:	<b><math>4x-12</math></b>
2. Factored Form:	<b><math>-2x(x+3)</math></b>	Simplified Form:	$-2x^2 - 6x$
3. Decimal:	0.7	Fraction:	$\frac{7}{10}$
4. Decimal:	<b>1.8</b>	Fraction:	$\frac{9}{5}$
5. Percentage:	0.3%	Decimal:	<b>0.003</b>
6. Scientific Notation:	$2.3 \times 10^{-3}$	Standard Notation:	<b>0.0023</b>
7. Scientific Notation:	<b><math>3.65 \times 10^9</math></b>	Standard Notation:	3,650,000,000
8. In lowest terms:	<b>4</b>	Not in lowest terms:	$\frac{32}{8}$
9. Expanded Form:	$5 \cdot 5 \cdot 5 \cdot 5 \cdot 5$	Exponent form:	<b><math>5^5</math></b>
10. Expanded Form (w/ positive exponent):	$\frac{1}{3 \cdot 3}$	Exponent form:	$3^{-2}$
11. Compound Fraction: $\frac{\frac{1}{6}}{\frac{5}{3}}$		Simplified form: (may want to refer to #29-31 of your day 2 Homework for an example)	$\frac{1}{10}$