

## Section 1.1 Focus Exercise Answers

1. a) 12      b) 0      c) 9      d)  $\frac{3}{5}$       e) 2.5      f)  $\sqrt{10}$
2. a)  $\frac{3}{100}$       b)  $\frac{75}{10} = \frac{15}{2}$  or  $7\frac{1}{2}$       c)  $-\frac{105}{1000} = -\frac{21}{200}$
3. a)  $\frac{8}{9}$       b)  $\frac{45}{99} = \frac{5}{11}$       c)  $\frac{216}{999} = \frac{8}{37}$
- d)  $\frac{72}{99} = \frac{8}{11}$       e)  $\frac{6}{99} = \frac{2}{33}$       f)  $\frac{540}{999} = \frac{20}{37}$
4. a) Rational; the numerator and denominator are integers.  
 b) Rational; the numerator and denominator are integers.  
 c) Rational; the number is a repeating decimal.  
 d) Not rational; the decimal does not terminate and does not repeat.  
 e) Rational; the decimal terminates.

5.		Natural	Whole	Integer	Rational	Irrational	Undefined	Real
a)	- 5			✓	✓			✓
b)	8.2395071...					✓		✓
c)	$-\frac{6}{7}$				✓			✓
d)	$\pi$					✓		✓
e)	$\frac{2}{0}$						✓	✓
f)	$3.\overline{14}$				✓			✓
g)	$\frac{9}{3}$	✓	✓	✓	✓			✓
h)	$\sqrt{6}$					✓		✓
i)	$\frac{0}{3}$		✓	✓	✓			✓
j)	$-\sqrt{25}$			✓	✓			✓