#### Date:

# **Prerequisite Skills**

#### Decimals

**1.** Use a calculator to evaluate.

a) 
$$4.15 \times 0.23$$
  
b)  $\frac{15}{100} \div 12$   
c)  $1500(0.15)(14)$   
d)  $3275(1+0.05)(15)$   
e)  $6250 + 6250(0.10)(0.5)$   
f)  $1835 + 1835(0.05)(22)$ 

2. Find each quotient. Do not use a calculator.

<b>a)</b> 0.10 ÷ 4	<b>b)</b> 0.15 ÷ 3
<b>c)</b> 0.06 ÷ 6	<b>d)</b> 0.06 ÷ 12
<b>e)</b> 0.15 ÷ 2	<b>f</b> ) 0.21 ÷ 3

## Percents

**3.** Write each percent as a decimal.

<b>a)</b> 14%	<b>b)</b> 8%
<b>c)</b> 125%	<b>d)</b> 0.3%
e) 4.9%	<b>f</b> ) 44%

4. Estimate.

<b>a)</b> 11% of 395	<b>b)</b> 14% of 1009
<b>c)</b> 0.95% of 12 355	<b>d)</b> 2.6% of 4015
<b>e)</b> 24% of 885	<b>f)</b> 1.8% of 6124

5. Evaluate. Write your answer as a decimal.

<b>a)</b> 12% ÷ 3	<b>b)</b> 2.4% ÷ 6
<b>c)</b> 25% ÷ 2	<b>d)</b> 30% ÷ 12
<b>e)</b> 14.2% ÷ 4	<b>f)</b> 14.7% ÷ 12

## Exponents

**6.** Evaluate mentally.

<b>a)</b> $3^3$	<b>b)</b> 8 <sup>2</sup>
c) $(2.5)^2$ e) $1^{24}$	<b>d</b> ) $(0.8)^2$
<b>e)</b> $1^{24}$	<b>f</b> ) $2^5$

7. Use a calculator to evaluate.

<b>a)</b> (1.095) <sup>4</sup>	<b>b</b> ) $(0.825)^{6}$
<b>c)</b> $(1.15)^9$	<b>d)</b> $(2.227)^3$
<b>e)</b> (1.0025) <sup>60</sup>	<b>f)</b> $(1.05)^{24}$

## **Compound Interest**

- **8.** Determine the interest rate per compounding period for each annual interest rate.
  - a) 8% compounded monthly
  - **b)** 15% compounded semi-annually
  - c) 2% compounded quarterly
  - d) 12% compounded monthly
  - e) 8.5% compounded yearly
  - f) 4.4% compounded quarterly
- **9.** Calculate the number of interest payments that will be made in each investment.
  - a) compounded monthly for 12 years
  - **b**) compounded quarterly for 3 years
  - c) compounded semi-annually for 5 years
  - **d)** compounded daily for the last 3 months of the year
  - e) compounded annually for 25 years
  - f) compounded semi-annually for 2.5 years
- 10. Find the future value, FV, for each investment, PV. Use the formula  $FV = PV(1 + i)^n$ .
  - a) \$4500 at 6% annually, compounded semi-annually for 10 years
  - **b)** \$2000 at 4% annually, compounded quarterly for 25 years
  - c) \$825 at 4.8% annually, compounded quarterly for 5 years
  - **d)** \$10 000 at 9% annually, compounded monthly for 12 years

#### BLM 9-1