

Growth Factor

Instructions: For each of the following data sets find the equation, growth rate as a decimal and as a percent, doubling time, and amount after 20 time periods.

1. Compound Interest

| Year | Balance |
|------|---------|
| 0 | 2500 |
| 1 | 2650 |
| 2 | 2809 |
| 3 | 2978 |
| 4 | 3156 |
| 5 | |

Equation _____
 Growth rate as decimal and percent

_____ Doubling time _____
 Amount after 20 years _____
 Time when amount will reach 10,000

3. Compound Interest

| Year | Balance |
|------|---------|
| 0 | 3000 |
| 1 | 3360 |
| 2 | |
| 3 | 4214.80 |
| 4 | 4720.60 |
| 5 | 5287 |

Equation _____
 Growth rate as decimal and percent

_____ Doubling time _____
 Amount after 20 years _____
 Time when amount will reach 10,000

2. Compound Interest

| Year | Balance |
|------|---------|
| 0 | 150 |
| 1 | 162.75 |
| 2 | 176.58 |
| 3 | 191.59 |
| 4 | 207.88 |
| 5 | 225.55 |

Equation _____
 Growth rate as decimal and percent

_____ Doubling time _____
 Amount after 15 years _____
 Time when amount will reach 2000

4. Compound Interest

| Year | Balance |
|------|---------|
| 0 | |
| 1 | |
| 2 | 1323 |
| 3 | 1389.20 |
| 4 | 1458.60 |
| 5 | 1531.50 |

Equation _____
 Growth rate as decimal and percent

_____ Doubling time _____
 Amount after 12 years _____
 Time when amount will reach 5000

5. Compound Interest

| Year | Balance |
|------|---------|
| 0 | |
| 1 | 158.25 |
| 2 | 166.95 |
| 3 | |
| 4 | 185.82 |
| 5 | 196.04 |

Equation _____
 Growth rate as decimal and percent _____
 Doubling time _____
 Amount after 25 years _____
 Time when amount will reach 4000 _____

6. Compound Interest

| Year | Balance |
|------|---------|
| 0 | 120 |
| 1 | 141.6 |
| 2 | 167.09 |
| 3 | 197.16 |
| 4 | 232.65 |
| 5 | 274.53 |

Equation _____
 Growth rate as decimal and percent _____
 Doubling time _____
 Amount after 20 years _____
 Time when amount will reach 10,000 _____

7. Population of Britain in Millions
 (Year 0 = 1997)

| Year | Population |
|------|------------|
| 0 | 59.1 |
| 1 | 59.22 |
| 2 | 59.34 |
| 3 | 59.46 |
| 4 | 59.57 |
| 5 | 59.59 |

Equation _____
 Growth rate as decimal and percent _____
 Doubling time _____
 Amount after 20 years _____
 Time when amount will reach 100 Million _____

8. Population of Guatemala in Millions
 (Year 0 = 1997)

| Year | Population |
|------|------------|
| 0 | 11.6 |
| 1 | 11.96 |
| 2 | 12.33 |
| 3 | |
| 4 | |
| 5 | 13.51 |

Equation _____
 Growth rate as decimal and percent _____
 Doubling time _____
 Amount after 20 years _____
 Time when amount will reach 20 Million _____

9. Population of Columbia in Millions
(Year 0 = 1997)

| Year | Population |
|------|------------|
| 0 | 38.6 |
| 1 | |
| 2 | 40.24 |
| 3 | 41.08 |
| 4 | 41.95 |
| 5 | |

Equation _____
 Growth rate as decimal and percent

 Doubling time _____
 Amount after 20 years _____
 Time when amount will reach 100
 Million _____

10. Population of Tucson in Thousands

| Year | Population |
|------|------------|
| 1998 | 836 |
| 1999 | 854.7 |
| 2000 | 873.87 |
| 2001 | 893.45 |
| 2002 | 913.46 |
| 2003 | 933.92 |

Equation _____
 Growth rate as decimal and percent

 Doubling time _____
 Amount after 20 years _____
 Time when amount will reach 1 Million
