

E6-1

$$\$100 \times (1.03)^4 = \$112.55$$

E6-2

1/1/02 deposit: $\$100 \times (1.03)^4 =$	\$112.55
1/1/03 deposit: $\$100 \times (1.03)^3 =$	\$109.27
1/1/04 deposit: $\$100 \times (1.03)^2 =$	\$106.09
1/1/05 deposit: $\$100 \times (1.03)^1 =$	\$103.00
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	\$430.91

E6-3

Answer: \$100

Date	Beginning Balance	3% Interest	Balance at Year end	With drawal	Year end Balance after With drawal	
1/1/02	\$100	3	\$103	\$3	\$100	(12/31/02)
1/1/03	\$100	3	\$103	\$3	\$100	(12/31/03)
1/1/04	\$100	3	\$103	\$3	\$100	(12/31/04)
1/1/05	\$100	3	\$103	\$3	\$100	(12/31/05)

E6-4

Answer: \$28.87

Date	Beginning Balance	3% Interest	Balance at Year end	With drawal	Year end Balance after With drawal	
1/1/02	\$100.00	3.00	\$103.00	\$20	\$83.00	(12/31/02)
1/1/03	\$83.00	2.49	\$85.49	\$20	\$65.49	(12/31/03)
1/1/04	\$65.49	1.96	\$67.45	\$20	\$47.45	(12/31/04)
1/1/05	\$47.45	1.42	\$48.87	\$20	\$28.87	(12/31/05)

E6-5

$$\$100 \times (1 + I)^1 = \$105.50; \$100 \times 1.055 = \$105.50; I = 5.5\%$$

E6-6

$$\$100 \times (1 + I)^2 = \$112.36; (1 + I)^2 = 1.1236; I = 6\%$$

E6-7

Answer: \$121.67

Date	Beginning Balance	4% Interest	Balance at Year end	
1/1/02	\$100.00	4.00	\$104.00	12/31/02
1/1/03	\$104.00	4.16	\$108.16	12/31/03
1/1/04	\$108.16	4.33	\$112.49	12/31/04
1/1/05	\$112.49	4.50	\$116.99	12/31/05
1/1/06	\$116.99	4.68	\$121.67	12/31/06

E6-8

Answer: \$100

Date	Loan Balance	4% Interest	Balance at Year end	Payment	Balance after Payment	
1/1/02	\$100	4.00	\$104.00	\$4	\$100.00	(12/31/02)
1/1/03	\$100	4.00	\$104.00	\$4	\$100.00	(12/31/03)
1/1/04	\$100	4.00	\$104.00	\$4	\$100.00	(12/31/04)
1/1/05	\$100	4.00	\$104.00	\$4	\$100.00	(12/31/05)
1/1/06	\$100	4.00	\$104.00	\$4	\$100.00	(12/31/06)
1/1/07	\$100	4.00	\$104.00	\$4	\$100.00	(12/31/07)
1/1/08	\$100					

E6-9

Answer: \$100

$$\$D \times (1.08)^1 = \$108; D = \$100$$

E6-10

Answer: \$354.60

$(\$100)/1.05 =$	\$95.24
$(\$100)/(1.05)^2 =$	\$90.70
$(\$100)/(1.05)^3 =$	\$86.39
$(\$100)/(1.05)^4 =$	\$82.27
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	\$354.60

E6-11

Answer: \$94.34  
 $(\$100)/1.06 = \$94.34$

E6-12  
 $(\$4)/1.04 = \$3.85$   
 $\$104/(1.04)^2 = 96.15$ 

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PV = \$100.00

E6-13  
 $(\$4)/1.05 = \$3.81$   
 $\$104/(1.05)^2 = 94.33$ 

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PV = \$98.14

E6-14  
 $(\$4)/1.03 = \$3.88$   
 $\$104/(1.03)^2 = 98.03$ 

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PV = \$101.91

E6-15  
 $\$1,000 (.5) + \$2,000 (.5) = \$500 + 1,000 = \$1,500$

E6-16  
 $\$1,000 (.6) + \$2,000 (.4) = \$600 + \$800 = \$1,400$

E6-17  
 $\$1,000 (.4) + \$2,000 (.6) = \$400 + \$1,200 = \$1,600$

E6-18  
 $PV = \$1,500 \times (1/1.06) = \$1,415.09$

E6-19  
 $PV = \$1,400 \times (1/1.06) = \$1,320.75$

E6-20  
 $PV = \$1,600 \times (1/1.06) = \$1,509.43$

E6-21  
 $\$200(1.06)^3 = \$238.20$

E6-22  
 $(X)(1.05)^3 = 500; (X)1.1576 = 500; X = \$431.92$

E6-23  
 $700(X)^2 = \$801.43; (X)^2 = 1.1449; x = 1.07; i = .07$ . Therefore the interest rate is 7%.