

Business Math Review of Chapters 12-16 Answer Key by Michael Reimer

① $N 10 \times 1 = 10$
 I/Y 7
 PV ∞
PMT ? 36,188.75
 FV 500,000
 P/Y 1
 C/Y 1

② **2nd** Amort
PV
 P1 4 Enter ↓
 P2 4 Enter ↓
BAL = 160,675.99

③ $N 6 \times 4 = 24$
 I/Y 5.8
 PV 10,000
 PMT ? 495.75
 FV ∞
 P/Y 4
 C/Y 2

2nd Amort
PV
 P1 15 Enter ↓
 P2 15 Enter ↓ ↓ ↓
INT = 66.03

④

YR	P1	P2
1	1	4
2	5	8
3	9	12
4	13	16
5	17	20
6	21	24

2nd Amort
PV
 P1 5 Enter ↓
 P2 8 Enter ↓ ↓
PRN 1522.42

⑤ Option 1: Buy right now for \$50,000
 Option 2: Lease by making BGN PMT of \$1000 monthly for 5 years

Option 2
 BGN
 N $5 \times 12 = 60$
 I/Y 8
 PV ? 49,706.92
 PMT 1000
 FV ∞

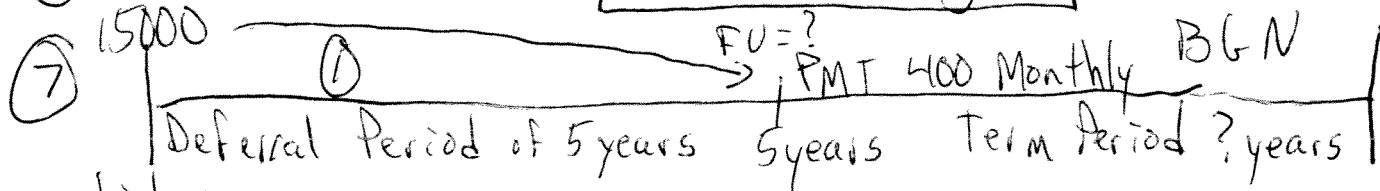
P/Y 12
 C/Y 4

Buy = 50,000
 Lease = 49,706.92

You should lease.

Business Math Review of Chapters 12-16 Answer Key by Michael Reimer (2)

⑥ $58000 - 49706.92 = 293.08$ Savings



today

① Deferral Period	② Term Period BGN
N $5 \times 4 = 20$	N ? 96.13 ↑ 97
I/Y 11	I/Y 11
PV 15000	PV 25806.43
PMT \emptyset	PMT -400
FV ? 25806.43	FV \emptyset
P/Y 4	P/Y 12
C/Y 4	C/Y 4

⑧ Interest Earned = Total Received - PV

Total Received = $N \times PMT = 96.13 \times 400 = 38452$

Interest Earned = $38452 - 15000 = 23452$

⑨ BGN

N $25 \times 4 = 100$

I/Y 8.2

PV 125000

PMT ? 2890.99

FV \emptyset

P/Y 4

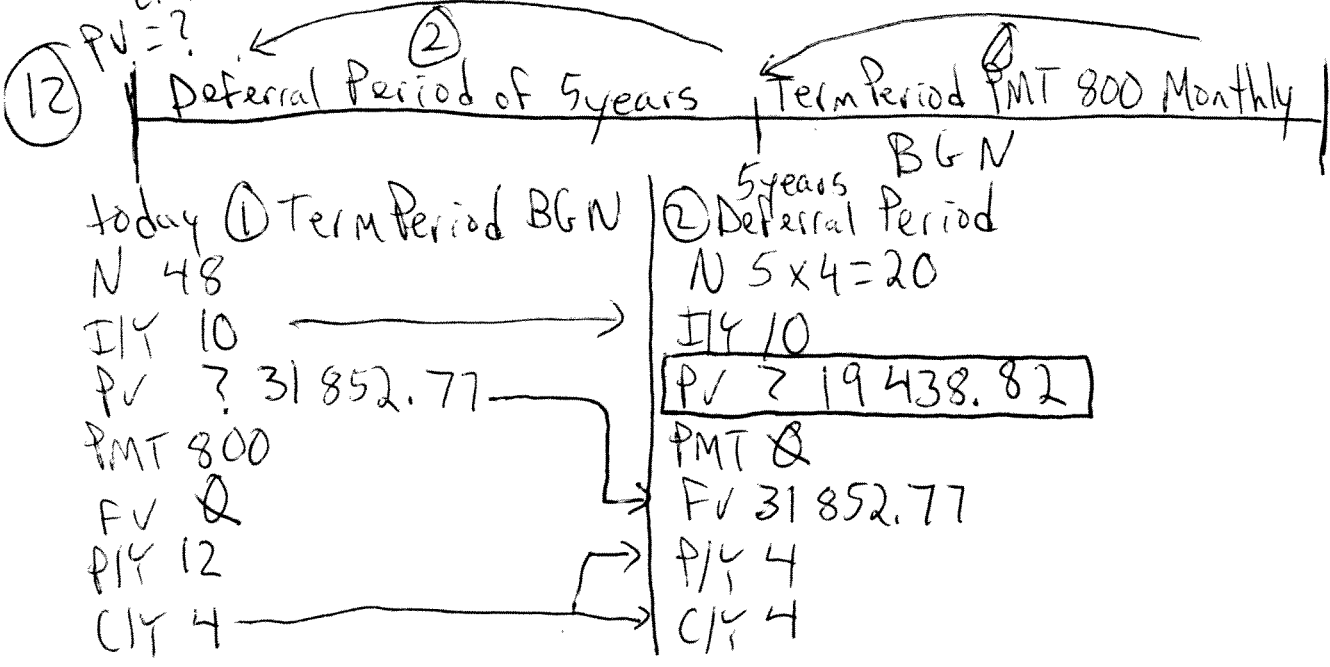
C/Y 4

Business Math Review of Chapters 12-16 Answer Key by Michael Reimer (3)

10) END
 N 25 x 12 = 300
 I/Y 8.5
 PV 120000
 PMT ? 966.27
 FV &
 P/Y 12
 C/Y 12

11) 2nd Amort 5 x 12 = 60
 PV
 P1 60 Enter ↓
 P2 60 Enter ↓
 BAL = 111344.39

Principal Reduction = 120000 - 111344.39 = 8655.61



13) 2nd Bond 9

SDT 12.0808 Enter ↓
 CPN 6.5 Enter ↓
 RDT 1.0115 Enter ↓
 RV 100 ↓
 Act ↓
 2/Y ↓
 YLD 5.8 Enter ↓

PRI CRT 103.5313774 % x 1000 = 1035.31 + 28.26 = 1063.57
 Purchase Price
 AT 2.826086957 % x 1000 = 28.26

Business Math Review of Chapters 12-16 Answer Key by Michael Reimer

(4)

(14) BGN
 $N 10 \times 12 = 120$
 $I/Y ? 5.20$
 $PV \&$
 $PMT -3500$
 $FV 550000$
 $P/Y 12$
 $C/Y 2$

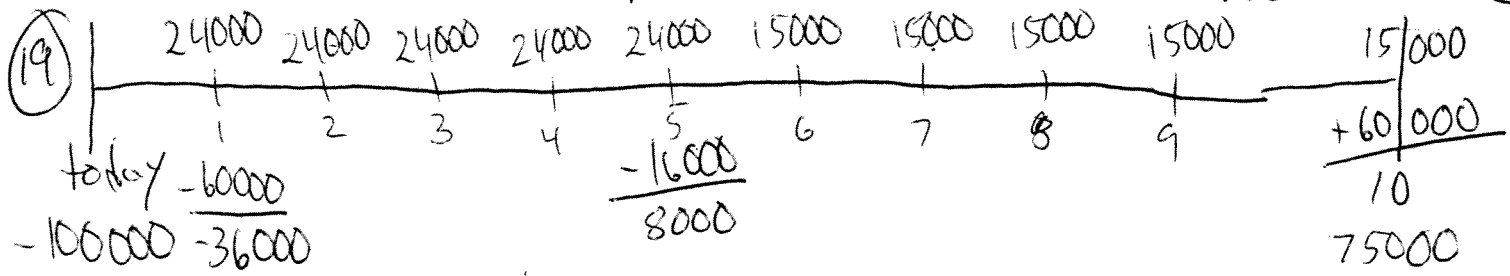
(15) (2nd) I CONV
 2
 $NOM 5.20$ Enter \uparrow
 $I/Y 2$ Enter \uparrow
 $EFF CPT 5.27$

(16) (2nd) Bond (9)
 $SDT 1.0100$ Enter \downarrow
 $CPN 4.6$ Enter \downarrow
 $RDT 1.0107$ Enter \downarrow
 $RV 100$ \downarrow
 $ACT \downarrow$
 $Z/Y \downarrow$
 $YLD 5.5$ Enter \downarrow
 $PRC CPT 94.82904634\% \times 25000 =$ 23707.26 Purchase Price
 $AI = \&$

(17) Discount = Bond Value - Purchase Price
 $= 25000 - 23707.26 = 1292.74$

(18) BGN
 $N ? 20.93744053 \uparrow 21$
 $I/Y 5.6$
 $PV 4000$
 $PMT -200$
 $FV \&$
 $P/Y 12$
 $C/Y 4$

Business Math Review of Chapters 12-16 Answer key by Michael Reimer (5)



CF 2nd CLR WORK
CF/L

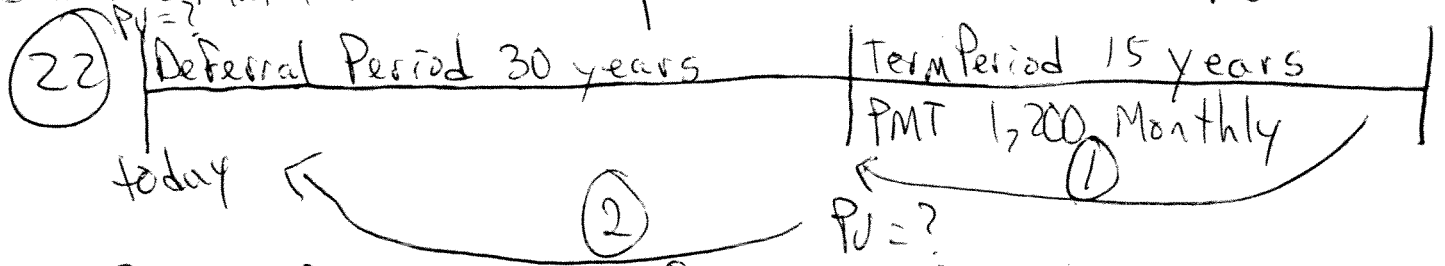
- CF₀ -100000 Enter ↓
- CF₁ -36000 Enter ↓
- F₀₁ 1 ↓
- CF₂ 24000 Enter ↓
- F₀₂ 3 Enter ↓
- CF₃ 8000 Enter ↓
- F₀₃ 1 ↓
- CF₄ 15000 Enter ↓
- F₀₄ 4 Enter ↓
- CF₅ 75000 Enter ↓
- F₀₅ 1

NPV I 13 Enter ↓
NPV CPT -31057.47 Negative answer, so, we should say No to the sail boat purchase.

20 N 500 x 1 = 500
 I/Y 5.83
 PV 25000
PMT ? 1457.50
 FV ~~?~~
 P/Y 1
 C/Y 1

2.1 N 500 x 1 = 500
 I/Y 8.49
PV ? 17667.84
 PMT 1500
 FV ~~?~~
 P/Y 1
 C/Y 1

Business Math Review of Chapters 12-16 Answer Key by Michael Reimer (6)



① Term Period END	② Deferral Period
$N 15 \times 12 = 180$	$N 30 \times 4 = 120$
$I/Y 7.93$	$I/Y 7.93$
$PV ? 126 497.96$	$PV ? 11 995.13$
$PMT 1200$	$PMT \emptyset$
$FV \emptyset$	$FV 126 497.96$
$P/Y 12$	$P/Y 4$
$C/Y 4$	$C/Y 4$