# CapB.docx Capital Budgeting Essentials

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## Part CB Basic capital budgeting relationships

### CB15 Find the payback period for perpetuity

A company pursues a cost-cutting initiative that costs $29,000 to implement. Thereafter, however, the initiative reduces after-tax costs by $6,500 per year perpetually. How long, in years, is the payback period?

{ANSWER: C ; xlADDRESS: CapBud!$B$252 }

/\a. 6.5 years b. 4.9 years c. 4.5 years d. 5.9 years e. 5.4 years

### CB16a Find the DISCOUNTED payback period for perpetuity

A company pursues a cost-cutting initiative that costs $20,000 to implement. Thereafter, however, the initiative reduces after-tax costs by $7,000 per year perpetually. The project financing rate is 14.0% compounded annually. How long, in years, is the discounted payback period?

{ANSWER: E ; xlADDRESS: CapBud!$B$265 }

/\a. 3.2 b. 4.3 c. 4.7 d. 3.5 e. 3.9

### CB16b Find the AND(discounted & regular) payback period for perpetuity

A company pursues a cost-cutting initiative that costs $20,000 to implement. Thereafter, however, the initiative reduces after-tax costs by $7,000 per year perpetually. The project financing rate is 14.0% compounded annually. How long, in years, is the discounted payback period?

{ANSWER: C ; xlADDRESS: CapBud!$F$265 }

/\a. the discounted and regular payback periods equal 4.5 years and 2.5 years

/\b. the discounted and regular payback periods equal 5.2 years and 2.9 years

/\c. the discounted and regular payback periods equal 3.9 years and 2.9 years

/\d. the discounted and regular payback periods equal 3.9 years and 2.5 years

/\e. the discounted and regular payback periods equal 4.5 years and 2.9 years

### CB1 Find the monthly payback period

The Company pays $29,000 for an asset that is expected to generate after-tax cash flows at a rate of $1,200 per month for the first year, $1,000 per month for the second year, and $900 per month for the third year. How long, in months, is the investment’s payback period?

{ANSWER: E ; xlADDRESS: CapBud!$B$31 }

/\a. 24.4 b. 35.8 c. 29.6 d. 32.5 e. 26.9

### CB14 Find the monthly DISCOUNTED payback period

The Company pays $25,000 for an asset that is expected to generate after-tax cash flows at a rate of $900 per month for the first year, $1,400 per month for the second year, and $1,300 per month for the third year. The project financing rate is 12.0% compounded monthly. How long, in months, is the investment’s discounted payback period?

{ANSWER: C ; xlADDRESS: CapBud!$B$240; CLUES: pv(year1)= $10,130 ; pv(year1&2)= $24,113 ; pv(year1&2&3)= $35,637 }

/\a. 29.9 b. 20.4 c. 24.7 d. 27.2 e. 22.4

### CB7 Payback period for bank on a mortgage

The bank issues a $132,000 mortgage for 25 years (monthly payments) at an annual rate of 8.10%. How long for the bank is the payback period?

{ANSWER: C ; xlADDRESS: CapBud!$B$47 }

/\a. 15 years, 8 months b. 14 years, 3 months c. 10 years, 8 months d. 11 years, 9 months e. 12 years, 11 months

### CB20 Find biggest NPV choice among two 1-period projects

Should a company pursue Project L costing $100 that returns $110 in one period and is financed at 11% or Project H that costs $100, returns $118 , and is financed at 17%.

{ANSWER: A ; xlADDRESS: CapBud!$B$324 }

/\a. Project H creates more capitalized wealth and is better.

/\b. Project L creates more capitalized wealth and is better.

/\c. NPV is the same for L and H so the company should be indifferent.

### CB11 Find IRR for mixed annual cash flows

The company buys an asset that costs $18,600 and returns net cash flow of $1,700 per year for 8 years, followed by $2,600 per year for 8 additional years. Find the asset’s internal rate of return.

{ANSWER: D ; xlADDRESS: CapBud!$B$17 }

/\a. 9.9% b. 6.7% c. 9.0% d. 7.4% e. 8.2%

### CB18a Find NPV for back-to-back mixed annual annuities

The company buys an asset that costs $9,300 and returns net cash flow of $1,600 per year for 6 years, followed by $2,600 per year for 2 additional years. The company financing rate is 11.1% compounded annually. Find the asset’s net present value.

{ANSWER: C ; xlADDRESS: CapBud!$B$310 }

/\a. ($169) b. ($205) c. ($186) d. ($140) e. ($154)

### CB18b Find and(NPV, IRR) for back-to-back mixed annual annuities

The company buys an asset that costs $9,300 and returns net cash flow of $1,600 per year for 6 years, followed by $2,600 per year for 2 additional years. The company financing rate is 11.1% compounded annually. Find the asset’s internal rate of return and net present value.

{ANSWER: C ; xlADDRESS: CapBud!$F$310 }

/\a. The IRR and NPV equal 14.0% and ($186)

/\b. The IRR and NPV equal 10.6% and ($162)

/\c. The IRR and NPV equal 10.6% and ($186)

/\d. The IRR and NPV equal 14.0% and ($162)

/\e. The IRR and NPV equal 12.2% and ($186)

### CB12 Find IRR for mixed monthly cash flows

The company considers investing in an asset that costs $14,100 and returns after-tax net cash flow of $180 per month for 2 years, followed by $250 per month for an additional 4 years. The company financing rate is 9.2% compounded monthly. According to the decision rule for the “internal rate of return”, is this project a wise investment for the company?

{ANSWER: C ; xlADDRESS: CapBud!$B$210 }

/\a. The annual IRR is 4.6% and the investment does create wealth for the company.

/\b. The annual IRR is 5.3% and the investment does create wealth for the company.

/\c. The annual IRR is 4.6% and the investment does not create wealth for the company.

/\d. The annual IRR is 6.1% and the investment does create wealth for the company.

/\e. The annual IRR is 5.3% and the investment does not create wealth for the company.

### CB19a Find NPV for back-to-back mixed monthly annuities

The company buys an asset that costs $13,000 and returns net cash flow of $180 per month for 2 years, followed by $220 per month for 4 additional years. The company financing rate is 6.5% compounded monthly. Find the asset’s net present value.

{ANSWER: A ; xlADDRESS: CapBud!$B$294 }

/\a. ($810) b. ($891) c. ($1,079) d. ($981) e. ($737)

### CB19b Find and(NPV, IRR) for back-to-back mixed monthly annuities

The company buys an asset that costs $13,000 and returns net cash flow of $180 per month for 2 years, followed by $220 per month for 4 additional years. The company financing rate is 6.5% compounded monthly. Find the asset’s internal rate of return and net present value.

{ANSWER: D ; xlADDRESS: CapBud!$F$294 }

/\a. The IRR and NPV equal 5.0% and ($932)

/\b. The IRR and NPV equal 5.8% and ($932)

/\c. The IRR and NPV equal 5.8% and ($810)

/\d. The IRR and NPV equal 4.4% and ($810)

/\e. The IRR and NPV equal 5.0% and ($810)

### CB8 Find irr for bank selling mortgage after n payments

The bank issued a $145,000 25-year mortgage (monthly payments) with an annual interest rate of 10.40%. They just received payment number 135 and have decided to sell the loan. The buyer of the loan expects to receive an annual rate of return equal to 8.80%. For the original bank that issued the loan, what was the internal rate of return?

{ANSWER: A ; xlADDRESS: CapBud!$B$63 CLUES: market value = $129,786 }

/\a. 10.76% b. 9.78% c. 8.89% d. 11.84% e. 8.09%

### CB17a Find AND(NPV, IRR) for perpetuity

A company pursues a cost-cutting initiative that costs $31,000 to implement. Thereafter, however, the initiative reduces after-tax costs by $5,000 per year perpetually. The project financing rate is 13.4% compounded annually. Find the project’s net present value and internal rate of return.

{ANSWER: B ; xlADDRESS: CapBud!$B$278 }

/\a. NPV is $7,260 and IRR is 18.5%

/\b. NPV is $6,313 and IRR is 16.1%

/\c. NPV is $6,313 and IRR is 18.5%

/\d. NPV is $7,260 and IRR is 16.1%

/\e. NPV is $5,490 and IRR is 16.1%

### CB17b Find NPV for perpetuity

A company pursues a cost-cutting initiative that costs $31,000 to implement. Thereafter, however, the initiative reduces after-tax costs by $5,000 per year perpetually. The project financing rate is 13.4% compounded annually. Find the project’s net present value.

{ANSWER: E ; xlADDRESS: CapBud!$F$278 }

/\a. $6,945 b. $5,218 c. $5,739 d. $4,743 e. $6,313

### CB17c Find IRR for perpetuity

A company pursues a cost-cutting initiative that costs $31,000 to implement. Thereafter, however, the initiative reduces after-tax costs by $5,000 per year perpetually. Find the project’s internal rate of return.

{ANSWER: D ; xlADDRESS: CapBud!$J$278 }

/\a. 14.7% b. 13.3% c. 17.7% d. 16.1% e. 19.5%

### CB4 Find wealth created OR(today’s NPV, future’s FV(NPV)) given CF stream and r

Your company is looking at an investment that today costs $4,172 and returns after-tax cash flow exactly one year, two years, and three years from today, respectively, equal to $1,900 , $2,200 and $2,500 . The company intends to finance the investment at a rate of 12.6% and to repay the loan (principal and interest) with the investment cash flows as they occur. How much wealth will the investment create?

{ANSWER: B ; xlADDRESS: CapBud!$B$78 }

/\a. the capitalized value of wealth the project creates today is $1,430

/\b. the wealth created in the company at the time the loan finally is paid-off equals $1,430

/\c. the wealth created in the company at the time the loan finally is paid-off equals $1,243

/\d. the wealth created in the company at the time the loan finally is paid-off equals $1,644

/\e. the capitalized value of wealth the project creates today is $1,243

### CB5 What is the NPV rule (VERBAL QUESTION)?

Which statement comparing two mutually exclusive projects, X and Y, is most consistent with an optimal capital budgeting strategy?

{ANSWER: B ; xlADDRESS: CapBud!$B$93 }

/\a. X is best when X’s payback period is less than Y’s payback period

/\b. X is worst when X’s NPV is less than Y’s NPV

/\c. X is worst when X’s payback period is less than Y’s payback period

/\d. X is best when X’s rate of return is more than Y’s rate of return

/\e. when X’s IRR is bigger than Y’s, then X’s NPV must be bigger too

### CB6 Make an inference based on coordinates from NPV profile?

The company must invest in either project X or Y. The company knows that X and Y would have identical net present values if the financing rate were 8.1%. The internal rate of return is 14.8% for project Y and 23.5% for project X. Which of the following statements likely is most consistent with the net present value profile?

{ANSWER: A ; xlADDRESS: CapBud!$B$108 }

/\a. if the company's financing rate is 4.1% then probably Y has the highest NPV

/\b. if the company's financing rate is 7% then probably X has the highest NPV

/\c. if the company's financing rate is 2% then probably X has the highest NPV

/\d. if the company's financing rate is 11.5% then probably Y has the highest NPV

/\e. if the company's financing rate is 9.2% then probably Y has the highest NPV

*CB2 eExam.rtf*

t = 0 t = 1 t = 2 t = 3

A ($640) $467 $284 $115

B ($940) $108 $311 $929

### CB2a Given alternative investment’s cash flows, find which alternative is better at x%

Consider the following cash flows for two mutually exclusive investments:

*at time 0: CFA =* ($640) *and CFB =* ($940)

*at time 1: CFA =* $467  *and CFB =* $108

*at time 2: CFA =* $284  *and CFB =* $311

*at time 3: CFA =* $115  *and CFB =* $929

Which statement is true?

{ANSWER: E ; xlADDRESS: CapBud!$B$163 CLUES: IRR for A and B are 21.61% and 15.00%; NPVs at 0% financing rate for A and B: $226 and $408 . The cross-over point is 10.54%. }

/\a. if the financing rate is 9.64% then projects A and B create the same amount of wealth

/\b. if the financing rate is 15% then project B is the better of the two

/\c. if the financing rate is 7.5% then project A is the better of the two

/\d. if the financing rate is 21.6% then project B is the better of the two

/\e. if the financing rate is 18.3% then project A is the better of the two

### CB2b Given alternative investment’s cash flows, at what rate are the NPV’s equal

Consider the following cash flows for two mutually exclusive investments:

t = 0 t = 1 t = 2 t = 3

A ($640) $467 $284 $115

B ($940) $108 $311 $929

Your boss claims that projects A and B represent exactly the same net present value for your company. You politely point out that, because of differences in cash flow timing, the only way these projects have the same net present value is if your company’s actual financing rate equals what rate?

{ANSWER: E ; xlADDRESS: CapBud!$F$163 CLUES: IRR for A and B are 21.61% and 15.00%; NPVs at 0% financing rate for A and B: $226 and $408 . The cross-over point is 10.54%. }

/\a. 11.6% b. 14.0% c. 15.4% d. 12.8% e. 10.5%

### CB2c Given alternative investment’s cash flows, at what NPV are the projects equally worthy

Consider the following cash flows for two mutually exclusive investments:

t = 0 t = 1 t = 2 t = 3

A ($640) $467 $284 $115

B ($940) $108 $311 $929

Under very special circumstances, the two projects offer exactly the same net present value. How much is that net present value?

{ANSWER: E ; xlADDRESS: CapBud!$J$163 CLUES: IRR for A and B are 21.61% and 15.00%; NPVs at 0% financing rate for A and B: $226 and $408 . The cross-over point is 10.54%. }

/\a. $110 b. $146 c. $133 d. $121 e. $100

### CB21 Compare discounted depreciation tax shield

Companies X and Y both spend $100,000 on heavy equipment. They each face a 30% tax rate and 12.6% financing rate. Company X elects to take straight-line tax depreciation deductions over the next 4 years. Company Y elects to use the 3-year MACRS class for tax taking depreciation deductions (weights = 33.33%, 44.44%, and 14.82%, and 7.41%). Compute for each company the present value of tax savings resulting from the depreciation deductions.

{ANSWER: E ; xlADDRESS: CapBud!$B$334 }

/\a. Discounted tax savings for companies X and Y equal $22,495 and $27,476

/\b. Discounted tax savings for companies X and Y equal $19,561 and $27,476

/\c. Discounted tax savings for companies X and Y equal $25,870 and $23,892

/\d. Discounted tax savings for companies X and Y equal $19,561 and $23,892

/\e. Discounted tax savings for companies X and Y equal $22,495 and $23,892

### CB23 Find pv(depreciation tax savings) w/ 3-year MACRS

The company has *Capital expenditure* of $56,000 that are being depreciated along the 3-year MACRS class (weights = 33.33%, 44.44%, and 14.82%, and 7.41%). They face a 35% tax rate and 13.3% financing rate. Compute the present value of tax savings resulting from the depreciation deductions for this *Capital expenditure*.

{ANSWER: E ; xlADDRESS: CapBud!$B$371 }

/\a. $14,027 b. $12,752 c. $16,973 d. $11,593 e. $15,430

### CB24 Find net proceeds from sale with recapture taxes

Two years ago the company had *Capital expenditure* of $46,000 that it is depreciating along the 3-year MACRS class (weights = 33.33%, 44.44%, and 14.82%, and 7.41%). The company has just taken their second annual deduction. They today are selling the asset for $8,100 . Find the net proceeds from the sale given that they face a 35% tax rate and otherwise have substantial taxable income.

{ANSWER: E ; xlADDRESS: CapBud!$B$385; CLUES: remaining book value = $10,221 ; recapture taxes (savings) = ($742) }

/\a. $6,643 b. $8,039 c. $7,308 d. $6,039 e. $8,842

### CB10a IRR&NPV w/ straight-line, no salvage value, 3-year stream

Your company is analyzing purchase of a machine costing $5,700 today. The investment promises to add $9,000 to sales one year from today, $11,000 two years from today, and $15,000 three years from today. Incremental cash costs should consume 70% of the incremental sales. The tax rate is 30% and the company’s financing rate is 12.2%. The investment cost is depreciated to zero over a 3-year straight-line schedule. Find the project’s net present value and internal rate of return.

{ANSWER: B ; xlADDRESS: CapBud!$B$195; CLUES: Incremental CF for years 1-3 = $2,460 $2,880 $3,720 }

/\a. NPV and IRR equal $1,069 and 25.2%

/\b. NPV and IRR equal $1,414 and 25.2%

/\c. NPV and IRR equal $1,069 and 29.0%

/\d. NPV and IRR equal $1,414 and 29.0%

/\e. NPV and IRR equal $1,230 and 29.0%

### CB10b Find incremental cash flows w/ straight-line, no salvage value, 3-year stream

Your company is analyzing purchase of a machine costing $5,700 today. The investment promises to add $9,000 to sales one year from today, $11,000 two years from today, and $15,000 three years from today. Incremental cash costs should consume 70% of the incremental sales. The tax rate is 30% and the company’s financing rate is 12.2%. The investment cost is depreciated to zero over a 3-year straight-line schedule. Describe the incremental after-tax cash flow stream.

{ANSWER: A ; xlADDRESS: CapBud!$G$195 }

/\a. Incremental after-tax cash flow during year 1 is $2460

/\b. Incremental after-tax cash flow during year 2 is $3341

/\c. Incremental after-tax cash flow during year 3 is $4650

/\d. Two choices, B and C, are correct

/\e. None of the A-B-C choices are correct

### CB13 Find NPV for perpetuity and straight-line depreciation tax shield

The company invests $63,000 in an asset that should increase pre-tax revenue by $8,300 per year perpetually. The asset is depreciated for tax purposes by straight-line over 7 years. If the company faces a 30% tax rate and 13.2% financing rate, what is the investment’s Net Present Value?

{ANSWER: E ; xlADDRESS: CapBud!$B$225; CLUES: PV(after-tax perpetuity = $44,015 ; PV(depreciation tax savings)= $11,867 }

/\a. ($9,474) b. ($6,471) c. ($8,612) d. ($7,830) e. ($7,118)

### CB25a Find NPV for 3-year MACRS, constant EBITDA, no salvage value

A proposed project is expected to reduce pretax operating costs by $66,000 per year for 4 years. The project requires incremental expenses of $147,100 . The company is eligible to depreciate the entire expense within the 3-year *MACRS* class (weights = 33.33%, 44.45%, and 14.81%, and 7.41%). No salvageable assets remain beyond the project life. The company's tax rate is 30%, and the project's average financing rate is 10.2%. Find the *NPV* of the project's incremental cash flow stream.

{ANSWER: D ; xlADDRESS: CapBud!$B$405; CLUES: CF1-4 = $60,909 $65,816 $52,736 $49,470 }

/\a. $26,534 b. $29,187 c. $32,106 d. $35,317 e. $24,122

### CB25b Find And(NPV,IRR) for 3-year MACRS, constant EBITDA, no salvage value

A proposed project is expected to reduce pretax operating costs by $66,000 per year for 4 years. The project requires incremental expenses of $147,100 . The company is eligible to depreciate the entire expense within the 3-year *MACRS* class (weights = 33.33%, 44.45%, and 14.81%, and 7.41%). No salvageable assets remain beyond the project life. The company's tax rate is 30%, and the project's average financing rate is 10.2%. Find the *IRR* and *NPV* of the project's incremental cash flow stream.

{ANSWER: B ; xlADDRESS: CapBud!$F$405; CLUES: CF1-4 = $60,909 $65,816 $52,736 $49,470 }

/\a. The *IRR* is 18.6% and *NPV* equals $35,317

/\b. The *IRR* is 21.4% and *NPV* equals $35,317

/\c. The *IRR* is 18.6% and *NPV* equals $40,614

/\d. The *IRR* is 16.2% and *NPV* equals $40,614

/\e. The *IRR* is 16.2% and *NPV* equals $35,317

*CB22m Multipart single-setup*

The Company is considering a short-term expansion into a new product line making commemorative plates for the Olympics which are scheduled to occur 4-years henceforward. The following factors weigh in the decision:

a. the plate presser costs $119,700 and may be depreciated for tax purposes along a 7-year MACRS class (weights equal 14.29%, 24.49%, 17.49%, 12.49%, 8.93%, 8.93%, 8.93%, and 4.45%)

b. installation and shipping costs equal $5,900

c. the project requires an increase in *Net working capital* of $6,700

d. product development and market study fees of $7,400 already have been spent developing the plan

e. commemorative plates sell for $26.10 each and variable costs are $21.00 per plate

f. projected sales over the next 4 years are 6,000 plates, 11,000 plates, 14,000 plates, and 17,000 plates (thereafter sales would be zero).

g. the plate presser loses half its market value for each year of use; it will be sold after the 4th year

h. the financing rate is 12.4% and the tax rate is 30%

{xlADDRESS: CapBud!$B$357; CLUES: CF0  = ($132,300) ; CF1  = $26,804 ; CF2  = $48,498 ; CF3  = $56,570 ; CF4  = $94,341 ; Remaining book value = $39,237 ; net proceeds from salvage = $22,245 }

### CB22am Find NPV and IRR

Find the net present value and internal rate of return for the project.

{ANSWER: E ; xlADDRESS: CapBud!$B$357 }

/\a. NPV equals $25,112 and IRR is 17.9%

/\b. NPV equals $33,211 and IRR is 17.9%

/\c. NPV equals $25,112 and IRR is 20.6%

/\d. NPV equals $28,879 and IRR is 17.9%

/\e. NPV equals $28,879 and IRR is 20.6%

### CB22bm Match incremental cash flows at t=(0,1,or 4)

Find the statement that correctly describes the incremental cash flow at times 0, 1, or 4.

{ANSWER: E ; xlADDRESS: CapBud!$F$357 }

/\a. Total incremental costs at time 0 equal $94,341

/\b. Total incremental cash flow at time 4 equals $132,300

/\c. Total incremental cash flow at time 1 equals $94,341

/\d. Total incremental cash flow at time 4 equals $26,804

/\e. Total incremental cash flow at time 1 equals $26,804

Multiple setup (CB3m)

You took out a 30-year mortgage (monthly payments) for $85,000 at 9.50% and payment number 26 is due today. You are deciding whether you should refinance the outstanding principal by borrowing at today’s lower rate of 7.30% an amount that pays off the old loan. The new loan is for 30 years as of today. The total fees for getting the new loan equal 3.1% of the original loan’s outstanding principal. The first payment for the new loan would be due one month from today.

{xlADDRESS: CapBud!R116C1 ; CLUES: outstanding balance on original loan: $83,798 }

### CB3am Refinancing example, AMORTIZE fees, find NPV

Suppose you amortize the fees over the life of the new loan. What is the net present value of the refinancing venture if your “personal discount rate” is 17%?

{ANSWER: B ; xlADDRESS: CapBud!$B$132 CLUES: outstanding balance on original loan:$83,798 }

/\a. $7,678 b. $8,446 c. $9,291 d. $6,980 e. $10,220

### CB3bm Refinancing example, AMORTIZE fees, find interest savings over life of loan

Suppose you amortize the fees over the life of the new loan. How much would you save in interest expense over the life of the loan?

{ANSWER: E ; xlADDRESS: CapBud!$F$132 CLUES: outstanding balance on original loan: $83,798 }

/\a. $25,533 b. $33,984 c. $23,212 d. $30,895 e. $28,086

### CB3cm Refinancing example, PREPAY fees, find NPV

Suppose you pay the fees today with funds from your savings account. What is the net present value of the refinancing venture if your “personal discount rate” is 17%?

{ANSWER: E ; xlADDRESS: CapBud!$J$132 }

/\a. $10,391 b. $8,588 c. $9,447 d. $7,807 e. $7,097

### CB3dm Refinancing example, PREPAY fees, find interest savings over life of loan

Suppose you pay the fees today with funds from your savings account. How much would you save in interest expense over the life of the loan?

{ANSWER: B ; xlADDRESS: CapBud!$B$140 }

/\a. $26,363 b. $31,900 c. $35,090 d. $23,967 e. $29,000

### CB3em Refinancing example, prepay fees, find payback period

Suppose you pay the fees today with funds from your savings account. How long in months is the payback period?

{ANSWER: D ; xlADDRESS: CapBud!$F$140 }

/\a. 25 b. 21 c. 23 d. 19 e. 17

### CB9 Unequal life and find the EACF

A maintenance supplier offers two different service contracts that reduce your annual production costs. The two-year contract has an initial cost of $2,758 but promises after-tax savings to you of $2,100 during the first year, and $2,400 during the second year. The three-year contract has an initial cost of $4,272 and promises after-tax savings of $1,900 during the first year, $2,000 during the second year, and $3,000 during the third year. Your company’s financing rate is 13.3% and you expect to utilize this service throughout the foreseeable future. Contrast the profitability of each contract.

{ANSWER: B ; xlADDRESS: CapBud!$B$180 CLUES: the NPV of the 3-year and 2 year contracts equal $1,025 and $965 .}

/\a. the equivalent annual cash flow of the 3-year contract is $581

/\b. the equivalent annual cash flow of the 2-year contract is $581

/\c. the equivalent annual cash flow of the 2-year contract is $668

/\d. the equivalent annual cash flow of the 2-year contract is $768

/\e. the equivalent annual cash flow of the 3-year contract is $668

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