



**Incremental operating cash inflows** Strong Tool Company has been considering purchasing a new lathe to replace a fully depreciated lathe that will last 5 more years. The new lathe is expected to have a 5-year life and depreciation charges of \$2,320 in Year 1; \$3,712 in Year 2; \$2,204 in Year 3; \$1,392 in both Year 4 and Year 5. The firm estimates the revenues and expenses (excluding depreciation) for the new and the old lathes to be as shown in the following table. The firm is subject to a 40% tax rate on ordinary income.

- a. Calculate the *operating cash inflows* associated with each lathe.
- b. Calculate the *incremental (relevant) operating cash inflows* resulting from the proposed lathe replacement.
- c. Depict on a time line the incremental operating cash inflows calculated in part b.



a. Calculate the operating cash inflows associated with the new lathe below: (Round to the nearest dollar.)

Year	1
Revenue	\$ <input type="text"/>
Expenses (excluding depreciation and interest)	\$ <input type="text"/>
Profit before depreciation and taxes	\$ <input type="text"/>
Depreciation	\$ <input type="text"/>
Net profit before taxes	\$ <input type="text"/>
Taxes	\$ <input type="text"/>
Net profit after taxes	\$ <input type="text"/>
Operating cash flows	\$ <input type="text"/>

(Round to the nearest dollar.)

Year	2
Revenue	\$ <input type="text"/>
Expenses (excluding depreciation and interest)	\$ <input type="text"/>
Profit before depreciation and taxes	\$ <input type="text"/>
Depreciation	\$ <input type="text"/>
Net profit before taxes	\$ <input type="text"/>

c. Depict on a time line the incremental operating cash inflows resulting from the proposed lathe replacement.



Year	2
Revenue	\$ <input type="text"/>
Expenses (excluding depreciation and interest)	\$ <input type="text"/>
Profit before depreciation and taxes	\$ <input type="text"/>
Depreciation	\$ <input type="text"/>
Net profit before taxes	\$ <input type="text"/>
Taxes	\$ <input type="text"/>
Net profit after taxes	\$ <input type="text"/>
Operating cash flows	\$ <input type="text"/>

(Round to the nearest dollar.)

Year	3
Revenue	\$ <input type="text"/>
Expenses (excluding depreciation and interest)	\$ <input type="text"/>
Profit before depreciation and taxes	\$ <input type="text"/>
Depreciation	\$ <input type="text"/>
Net profit before taxes	\$ <input type="text"/>
Taxes	\$ <input type="text"/>

- b. Calculate the *incremental (relevant) operating cash inflows* resulting from the proposed lathe replacement.  
 c. Depict on a time line the incremental operating cash inflows calculated in part b.



Year	4
Revenue	\$ <input type="text"/>
Expenses (excluding depreciation and interest)	\$ <input type="text"/>
Profit before depreciation and taxes	\$ <input type="text"/>
Depreciation	\$ <input type="text"/>
Net profit before taxes	\$ <input type="text"/>
Taxes	\$ <input type="text"/>
Net profit after taxes	\$ <input type="text"/>
Operating cash flows	\$ <input type="text"/>

(Round to the nearest dollar.)

Year	5
Revenue	\$ <input type="text"/>
Expenses (excluding depreciation and interest)	\$ <input type="text"/>
Profit before depreciation and taxes	\$ <input type="text"/>
Depreciation	\$ <input type="text"/>
Net profit before taxes	\$ <input type="text"/>
Taxes	\$ <input type="text"/>

c. Depict on a time line the incremental operating cash inflows calculated in part b.

Revenue	\$	<input type="text"/>
Expenses (excluding depreciation and interest)	\$	<input type="text"/>
Profit before depreciation and taxes	\$	<input type="text"/>
Depreciation	\$	<input type="text"/>
Net profit before taxes	\$	<input type="text"/>
Taxes	\$	<input type="text"/>
Net profit after taxes	\$	<input type="text"/>
Operating cash flows	\$	<input type="text"/>

**Year**

**6**

Revenue	\$	<input type="text"/>
Expenses (excluding depreciation and interest)	\$	<input type="text"/>
Profit before depreciation and taxes	\$	<input type="text"/>
Depreciation	\$	<input type="text"/>
Net profit before taxes	\$	<input type="text"/>
Taxes	\$	<input type="text"/>
Net profit after taxes	\$	<input type="text"/>
Operating cash flows	\$	<input type="text"/>

c. Depict on a time line the incremental operating cash inflows calculated in part b.

Year	1-5
Revenue	\$ <input type="text"/>
Expenses (excluding depreciation and interest)	<input type="text"/>
Profit before depreciation and taxes	\$ <input type="text"/>
Depreciation	<input type="text"/>
Net profit before taxes	\$ <input type="text"/>
Taxes	<input type="text"/>
Net profit after taxes	\$ <input type="text"/>
Operating cash flows	\$ <input type="text"/>

b. Calculate the *incremental (relevant) operating cash inflows* resulting from the proposed lathe replacement.

Calculate the incremental (relevant) operating cash inflows resulting from the proposed lathe replacement below: (Round to the nearest dollar.)

Year	1
New Lathe	\$ <input type="text"/>
Old Lathe	\$ <input type="text"/>
Incremental Cash Flows	\$ <input type="text"/>

(Round to the nearest dollar.)

Year	2
New Lathe	\$ <input type="text"/>
Old Lathe	\$ <input type="text"/>
Incremental Cash Flows	\$ <input type="text"/>

(Round to the nearest dollar.)

Year	3
New Lathe	\$ <input type="text"/>
Old Lathe	\$ <input type="text"/>
Incremental Cash Flows	\$ <input type="text"/>

(Round to the nearest dollar.)

Year	4
New Lathe	\$ <input type="text"/>
Old Lathe	\$ <input type="text"/>
Incremental Cash Flows	\$ <input type="text"/>

(Round to the nearest dollar.)

- b. Calculate the *incremental (relevant) operating cash inflows* resulting from the proposed lathe replacement.  
 c. Depict on a time line the incremental operating cash inflows calculated in part b.

Year	5
New Lathe	\$ <input type="text"/>
Old Lathe	\$ <input type="text"/>
Incremental Cash Flows	\$ <input type="text"/>

(Round to the nearest dollar.)

Year	6
New Lathe	\$ <input type="text"/>
Old Lathe	\$ <input type="text"/>
Incremental Cash Flows	\$ <input type="text"/>

- c. Depict on a time line the incremental operating cash inflows calculated in part b. (Select the best choice below.)

- A. Year      Year      0      1      2      3      4      5      6
- Cash flow      \$1,828      \$2,985      \$2,982      \$3,257      \$3,857      \$0
- B. Year      Year      0      1      2      3      4      5      6
- Cash flow      \$7,288      \$8,445      \$8,442      \$8,717      \$9,317      \$0
- C. Year      Year      0      1      2      3      4      5      6

Incremental Cash Flows

\$	
----	--

(Round to the nearest dollar.)

Year	6	
New Lathe	\$	
Old Lathe	\$	
Incremental Cash Flows	\$	

c. Depict on a time line the incremental operating cash inflows calculated in part b. (Select the best choice below.)

- A. Year
- | Year      | 0       | 1       | 2       | 3       | 4       | 5   | 6 |
|-----------|---------|---------|---------|---------|---------|-----|---|
| Cash flow | \$1,828 | \$2,985 | \$2,982 | \$3,257 | \$3,857 | \$0 |   |
- B. Year
- | Year      | 0       | 1       | 2       | 3       | 4       | 5   | 6 |
|-----------|---------|---------|---------|---------|---------|-----|---|
| Cash flow | \$7,288 | \$8,445 | \$8,442 | \$8,717 | \$9,317 | \$0 |   |
- C. Year
- | Year      | 0       | 1       | 2       | 3       | 4       | 5   | 6 |
|-----------|---------|---------|---------|---------|---------|-----|---|
| Cash flow | \$1,828 | \$2,985 | \$2,982 | \$3,257 | \$3,857 | \$0 |   |

**Calculating initial investment** DuPree Coffee Roasters, Inc., wishes to expand and modernize its facilities. The installed cost of a proposed computer-controlled automatic-feed roaster will be \$139,000. The firm has a chance to sell its 4-year-old roaster for \$36,000. The existing roaster originally cost \$60,500 and was being depreciated straight-line over 7 years. DuPree pays taxes at a rate of 40%.

- What is the *book value* of the existing roaster?
- Calculate the after-tax proceeds of the sale of the existing roaster.
- Calculate the *change in net working capital* using the following figures:

**Anticipated Changes in Current Assets and Current Liabilities**

Accruals	− \$19,100
Inventory	+ 49,700
Accounts payable	+ 39,900
Accounts receivable	+ 69,200
Cash	0
Notes payable	+ 14,400

- Calculate the *initial investment* associated with the proposed new roaster.

- 
- The remaining book value of the existing roaster is \$ . (Round to the nearest dollar.)
  - The after-tax proceeds of the sale of the existing roaster will be \$ . (Round to the nearest dollar.)
  - The change in net working capital will be \$ . (Round to the nearest dollar.)
  - The initial investment associated with the proposed new roaster will be \$ . (Round to the nearest dollar.)

my instructor

Clear all

Check answer

MacBook Air