

Name: _____

In-Class Exercise #1

Present Value of Items

1. Introduction

Table 1 shows truck values from a datacall search.

Calculate the present value of these trucks and calculate the average cost of a vehicle in 2016. (For hand calculation do the first 6 only).

Year	Units	Gross Cost	Cost/Unit	2016 Cost/Unit
1999	5	\$1,056,589		
2012	7	\$1,989,029		
2013	1	\$281,648		
2000	5	\$1,110,928		
2001	9	\$2,025,189		
2011	4	\$1,087,217		
2008	5	\$1,308,559		
2007	7	\$1,742,903		
2000	2	\$448,105		
2000	1	\$216,682		
2005	3	\$728,018		
2000	7	\$1,518,885		
2013	8	\$2,316,205		
2015	2	\$597,660		
1999	7	\$1,474,551		
2002	3	\$700,909		
2002	8	\$1,830,106		
2012	6	\$1,693,032		
Average Cost				

What value would you suggest for a contract starting in 2018 and why?

2018 Value	
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Reason:

Name: _____

In-Class Exercise #2

Annualized Truck Payments

1. Introduction

For a 7 year contract you need to purchase a truck worth \$275,000. Your municipal debt rating allows an interest rate of prime plus 1.0% for loans of this nature.

Calculate the annual payment, capital balance and interest payments owing for each of the 7 years of the contract.

Vehicle Cost:	\$275,000		
Interest Rate:		monthly:	
Term:			

Compounded Annually

	Payment	Interest	Capital	Balance
start				
year 1				
year 2				
year 3				
year 4				
year 5				
year 6				
year 7				
year 8				
year 9				
year 10				

Comments:

Name: _____

In-Class Exercise #3

Required Trucks

1. Introduction

You need to service a community of 100,000 people with a density of 2.54 persons per household. The community has 12,270 multi-residential complexes with 88% of units serviced by private contractors and a total of 23,400 units with a density of 1.7 persons per unit.

Estimate the number of trucks required to service the community and explain your assumptions.

Total Population 100,000

	Population	Density	Units	% Curbside
Single Family Population				
Multi-Res Population				
Seasonal Population				

Curbside Collection Units		Collection days/week	
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Time per shift				
Time at stop				
Time between stops				
Time for Transfer				
Units per day			per week	

Curbside Trucks	
Backup Truck	
Total Trucks	

Comments:

Worksheet 2 - Staff

Curbside Collection Staff (See "Example Municipality")

Units	Job Title	Hourly or Annual Salary	Percentage Allocation Job to Curbside	Justification of Allocation Percentage
Municipal Staff				
	Manager			
	Coordinators/Supervisor			
	Administration/Clerical			
	Summer Staff / Temporary			
	Other			
	Other			
Contractor Staff				
	Manager			
	Supervisor			
	Administration/Clerical			
	Lead Hands			
	Drivers			
	Temporary Workers			
	Mechanics			
	Other			
	Other			