What's the Score? Student Page

Step 1

Refer to the map you drew. Determine how many acres you plan for each **land use**. The total should be 400 acres.

_____	acres Wilderness
_____	+ acres Trails
_____	+ acres Campground
_____	+ acres Hunting
_____	+ acres Fishing
_____	+ acres Timber Harvest
_____	+ acres Moose Viewing Area (1 moose needs at least 65 acres)
0.00	**TOTAL acres (must equal 400)**

Step 2

Calculate how many **visitors** per year this plan will attract to your community.

Number of acres in STEP 1 x visitors/acre	Total visitors/year
(_____ acres Wilderness) x (5 visitors/acre)	_____
+ (_____ acres Trails) x (25 visitors/acre)	_____
+ (_____ acres Campground) x (50 campers/acre)	_____
+ (_____ acres Hunting) x (1 hunter/acre)	_____
+ (_____ acres Fishing) x (2 anglers/acre)	_____
+ (_____ acres Timber Harvest) x (5 visitors/acre)	_____
+ (_____ acres Moose Viewing Area) x (1 visitor/65 acre)	
TOTAL visitors per year	0

Step 3

Calculate how this plan will affect the **wildlife** indicator species. Compare the totals you get to the original population of 8 owls, 2 moose, and 10,000 salamanders.
In the first column, use the number of acres you listed in Step 1.

Owls	acres Wilderness + acres Hunting + acres Timber Harvest	=	0.00 *Number of acres that will support owls at 0.02 owls/acre*	=	*Number of owls (round to nearest whole number)*
Moose	acres Wilderness + acres Trails + acres Hunting + acres Timber Harvest	=	0.00 *Number of acres that will support moose at 0.005 moose/acre*	=	*Number of moose (round to nearest whole number)*
Salamanders	acres Wilderness + acres Hunting + acres Timber Harvest	=	0.00 *Number of acres that will support 25 salamanders/acre*	=	*Number of salamanders (round to nearest whole number)*

Step 4

Calculate how many miles of **trail or road** are needed for your plan. In the first column, use the number of acres you listed in Step 1.

Acres			**Miles**	
(_____acres Trails)	÷ 6 acres/mile Wilderness	=	_____	miles of Trail
(_____acres Camp-ground	x 250 ft/acre) ÷ 5,280 ft/mile	=	_____	miles of road for Campground
(_____acres Hunting	x 100 ft/acre) ÷ 5,280 ft/mile	=	_____	miles of road for Hunting
(_____acres Timber Harvest	x 100 ft/acre) ÷ 5,280 ft/mile	=	_____	miles of road for Timber Harvest
(_____acres Moose Viewing	x 100 ft/acre) ÷ 5,280 ft/mile	=	_____	miles of road for Moose Viewing
	Total miles of trails or roads	=	0.00	

Step 5

Calculate how many mature **trees** remain based on your plan. Use the number of miles you calculated in Step 4.

(_____	miles of Trail x 0.36 acres/mile) x 150 trees/acre	=	_____	trees
(_____	miles of Campground road x 1.45 acres/mile) x 150 trees/acre	=	_____	trees
(_____	miles of Hunting road x 1.45 acres/mile) x 150 trees/acre	=	_____	trees
(_____	acres of Fishing) x 150 trees/acre	=	_____	trees
(_____	miles of Timber Harvest x 1/80 harvested) x 150 trees/acre	=	_____	trees
(_____	miles of Moose Viewing Area road x 1.45 acres/mile) x 150 trees/acre	=	_____	trees

Total trees removed = 0.00 trees

60,000 mature trees in 400-Acre Wood – 0.00 total trees removed = _____Trees remaining

Step 6

Calculate the revenue and costs associated with your plan, and determine the net profit or loss.
Use the number of visitors per year that you calculated in Step 2.

Revenue

		Fees (per year)
Wilderness visitors x $5 fee per visitor	=	$
Trails visitors x $5 fee per visitor	=	$
Campground campers x $45 per site ÷ 2 campers per site	=	$
Hunters x $20 fee per hunter	=	$
Anglers x $15 fee per angler	=	$
Timber Harvest visitors x $5 fee per visitor	=	$
Moose Viewing Area visitors x $15 fee per visitor	=	$
		Sale of Trees
Trees removed for Trails x $80 per tree	=	$
Trees removed for Campground road x $80 per tree	=	$
Trees removed for Hunting road x $80 per tree	=	$
Trees removed for Fishing x $80 per tree	=	$
Trees removed for Timber Harvest x $80 per tree	=	$
Trees removed for Moose Viewing Area x $80 per tree	=	$
TOTAL REVENUE (visitor fees and tree sales)	=	**$** $ 0.00

Costs

		Management Costs/yr
acres Wilderness x $5 per acre	=	$
acres Trails x $75 per acre	=	$
acres Campground x $300 per acre	=	$
acres Hunting x $15 per acre	=	$
acres Fishing x $10 per acre	=	$
acres Timber Harvest x $10 per acre	=	$
acres Moose Viewing Area x $5 per acre	=	$
		Construction Costs
miles of Trail x $150 per mile	=	$
miles of Campground Road x $800 per mile	=	$
acres Campsites x 4 sites per acre x $1,500 per site	=	$
miles Hunting road x $800 per mile	=	$
acres Fishing x $4,500 per mile	=	$
miles Timber Harvest road x $800 per mile	=	$
acres Moose Viewing Platforms x 3 sites x $3,000 per site	=	$
acres Moose Viewing Road at $800 per mile	=	$
TOTAL COSTS (Management costs + Construction costs)	=	**$** $ 0.00

PROFIT OR LOSS

(Total Revenue $ $ 0.00 **) – (Total Costs $** $ 0.00 **)** = **$** $ 0.00 **Net**

If the Net amount is positive, it is a profit; if it is negative, it is a loss.