

Group name: _____

Your name: _____

Problem: What metal best fits the needs of my client based on affordability, durability, weight (density), and shear strength

Evaluation (positives): (what are the advantages of each material?)

Aluminum-

Steel alloy-

Bone-

Titanium-

Decision:

	Criteria Affordability \$/lb	Criteria Tensile strength (MPa)	Criteria Weight (density g/cm ³)	Criteria Shear strength (MPa)
Option 1 Aluminum	0.929	241	2.7	165.4
Option 2 Steel Alloy	0.42	690	7.8	379.2
Option 3 Bone (limb)	???	104-121	1.6	51.6
Option 4 Titanium	30.23	880	4.43	550

What is the opportunity cost (second best option)?