

11.D3 This question provides us with a list of several metal alloys, and then asks us to pick those that may be strengthened by heat treatment, by cold work, or both. Those alloys that may be heat treated are either those noted as "heat treatable" (Tables 11.6 through 11.9), or as martensitic stainless steels (Table 11.4). Alloys that may be strengthened by cold working must not be exceptionally brittle (which may be the case for cast irons, Table 11.5), and, furthermore, must have recrystallization temperatures above room temperature (which immediately eliminates zinc). The alloys that fall within the three classifications are as follows:

<u>Heat Treatable</u>	<u>Cold Workable</u>	<u>Both</u>
410 stainless steel	410 stainless steel	410 stainless steel
4340 steel	4340 steel	4340 steel
ZK60A magnesium	ZK60A magnesium	ZK60A magnesium
356.0 aluminum	C26000 cartridge brass	
	R56400 Ti	
	1100 aluminum	