

5. [12] Draw, on the same scale, typical stress strain curves for

- (1) a structural ceramic
- (2) a high toughness metal
- (3) a high ductility polymer

Using the curve for the metal (redraw if necessary for clarity), define (a) Young's modulus, (b) tensile strength, (c) yield strength, (d) ductility (e) resiliency and (f) toughness. Using the curve for the ceramic (redraw if necessary for clarity), define (g) fracture strength.