1. 1G-1

   (a)
   $$f''(x) = 6 - x^{-\frac{3}{2}}$$

   (b)
   $$f''(x) = -10(x+5)^{-3}$$

   (c)
   $$f''(x) = -10(x+5)^{-3}$$

   (d)
   $$f''(x) = 0$$

2. 1G-2 if $f''' = 0$ then $f'' = a$ and $a$ is constant, $f' = ax + b$ b is constant too. After that $f = \frac{a}{2}x^2 + bx + c$ here c also constant.