Velocity + Acceleration WS

① $a(2) = 342$ ft/s²

② 14 m/s

③ −6 ft/s [could be: −52 ft/s]

④ 10 ft/s²

⑤ −128 ft/s

⑥ max height: 144 ft
ground $t = 6$ sec

⑦ speed: 96 ft/s

⑧ $v_0 = 160$ ft/s
$s(5) = 400$ ft max height

⑨ $(0, 2)$ moving left because $v < 0$
$(2, \infty)$ moving right because $v > 0$

⑩ 4 sec

⑪ (a) $t = 5$ sec (b) speed 176 ft/s (c) $t = 3$ sec
(d) $t = 3/2$ sec

⑫ $V_0 = 320$ ft/s