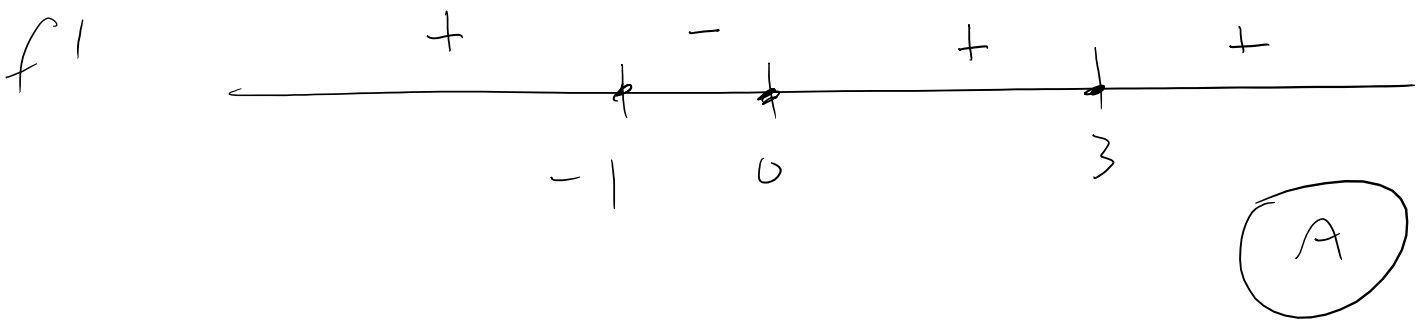
(7) $f'(x) = x(x-3)^2(x+1)$



(A)

(10) $\dfrac{x^2-7x+10}{6(x-2)} = \dfrac{(x-2)(x-5)}{3(x-2)}$

$= \dfrac{x-5}{6} = b \qquad \dfrac{-7}{6} = b \qquad -7 = b^2$

(E)

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(a) $\int_{-1}^{3} f(t)\,dt = 10 - 1 = 9$

(b) $g'(x) = f(x)$ $g \uparrow$ when $g' > 0$, $f > 0$

$(-5, -3)$ and $(-3, 2)$

$g''(x) = f'(x)$ g is concave down when $g'' < 0$ $(f' < 0)$

$(-5, -3)$ and $(0, 4)$

So $(-5, -3)$ and $(0, 2)$

(c) $h'(x) = \dfrac{5x\,g'(x) - g(x)\cdot 5}{25x^2}$

$= \dfrac{15\,g'(3) - g(3)\cdot 5}{225}$

$= \dfrac{15(-2) - 9(5)}{225} = \dfrac{-75}{225} = -\dfrac{1}{3}$

(d) $p(x) = f(x^2 - x)$ $p(-1) = f((-1)^2 - -1) = f(2) = 0$

$p' = f'(2)\cdot(2x - 1) = (-2)(-3) = 6$

350: 45, 54, 55, 63