

50.

4. g. $F(x) = x + x^2$, $F' = 1 + 2x$

$$x + x^2 = x$$

$$x^2 = 0$$

$$x = 0$$

$$F'(0) = 1 \text{ neutral}$$



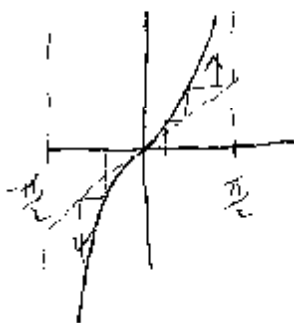
weakly attracting on left

weakly repelling on right

neither.

e. $T(x) = \tan x$

$$\tan 0 = 0$$



weakly repelling at 0

f. $F(x) = x + x^3$

$$F'(x) = 1 + 3x^2$$

$$x + x^3 = x$$

$$x^3 = 0$$

$$x = 0$$

$$F''(0) = 6x$$

$$F'''(x) = 6$$