3. Firewall Project XT. Using the "complexity weighting" scheme shown in Table 5.2 and the function point complexity weighted table shown below, estimate the total function point count. Assume historical data suggest five function points equal one person a month and six people can work on the project.

Complexity Weight Table

Number of inputs	10	Rated complexity low
Number of outputs	20	Rated complexity average
Number of inquires	10	Rated complexity average
Number of files	30	Rated complexity high
Number of interfaces	50	Rated complexity high

a. What is the estimated project duration?
b. If 20 people are available for the project, what is the estimated project duration?
c. If the project must be completed in six months, how many people will be needed for the project?

Complexity Weighting

Element	Low	Average	High	Total
Number of *inputs*	___ × 2 +	___ × 3 +	___ × 4	= ___
Number of *outputs*	___ × 3 +	___ × 6 +	___ × 9	= ___
Number of *inquiries*	___ × 2 +	___ × 4 +	___ × 6	= ___
Number of *files*	___ × 5 +	___ × 8 +	___ × 12	= ___
Number of *interfaces*	___ × 5 +	___ × 10 +	___ × 15	= ___

✳ no. of function points =

$$(10)(2) + (20)(6) + (10)(4) + (30)(12) + (50)(15) = 1290 \text{ function points}$$

A.) $1290 \, fp \cdot \dfrac{1 \text{ person} \cdot \text{month}}{5 \, fp} \cdot \dfrac{1}{6 \text{ people}} = 43 \text{ month}$

B.) $1290 \, fp \cdot \dfrac{1 \text{ person} \cdot \text{month}}{5 \, fp} \cdot \dfrac{1}{20 \text{ people}} = 12.9 \text{ month}$

C.) $1290 \, fp \cdot \dfrac{1 \text{ person} \cdot \text{month}}{5 \, fp} \cdot \dfrac{1}{X} = 6 \text{ months}$

$$X = 43 \text{ month}$$