Started on	Monday, 18 March 2019, 6:30 PM
State	Finished
Completed on	Monday, 18 March 2019, 6:57 PM
Time taken	27 mins 23 secs
Grade	**10.00** out of 10.00 (**100**%)

Estimating cost

Why is it difficult to estimate the costs and benefits of mega projects (e.g. airports, stadiums)?

(You may select more than one answer.)

Select one or more:

- ☐ a. Small scope but large complexity is a double whammy.
- ☑ b. It is difficult to estimate costs far into the future. ✔
- ☑ c. Deception may be used in promoting projects. ✔
- ☐ d. The public good will outweigh the costs.
- ☑ e. Promoters may be too optimistic or uninformed. ✔

Your answer is correct.

Mega projects are large scale, complex ventures that typically cost $1 billion or more, take many years to complete and involve multiple private and public stakeholders. Their complexity and long time horizon make it difficult to estimate costs. Benefits may tend to be intangible and often rely on a change in public behaviour. Promoters may use deception in estimates, either to provide a public good that the public may not understand or for personal gain.

The correct answers are: It is difficult to estimate costs far into the future., Deception may be used in promoting projects., Promoters may be too optimistic or uninformed.

Complexity Weighting

Firewall Project XT. Using the "complexity weighting" scheme and the function point complexity weighted table shown below, calculate the total function point count. Assume historical data suggest 6 function points equal one person-month and 7 people can work on the project.

Question: The total function point count is:

(Round the final answers to the nearest integer)

Complexity Weight Table

Number of inputs	9	Rated complexity	low	3 points
Number of outputs	20	Rated complexity	average	5 points
Number of inquiries	6	Rated complexity	average	5 points
Number of files	33	Rated complexity	high	10 points
Number of interfaces	50	Rated complexity	high	14 points

Answer: 1187 ✓

Complexity Weight Table					Total
Number of inputs	9	Rated complexity	low	3	27
Number of outputs	20	Rated complexity	average	5	100
Number of inquiries	6	Rated complexity	average	5	30
Number of files	33	Rated complexity	high	10	330
Number of interfaces	50	Rated complexity	high	14	700
				Total	**1187**

The correct answer is: 1187

Project Duration

Firewall Project XT. Using the "complexity weighting" scheme and the function point complexity weighted table shown below, calculate the total function point count. Assume historical data suggest 6 function points equal one person-month and 7 people can work on the project.

Question: Calculate the estimated project duration

(Round the final answers to the nearest integer)

Complexity Weight Table

Number of inputs	9	**Rated complexity**	low	3 points
Number of outputs	20	**Rated complexity**	average	5 points
Number of inquiries	6	**Rated complexity**	average	5 points
Number of files	33	**Rated complexity**	high	10 points
Number of interfaces	50	**Rated complexity**	high	14 points

Answer: 28 ✓

1187 / 6 function points = 197.8 person months. Assuming 7 people available, the project duration will be approximately 28.3 months (197.8333333 / 7) = 28.3

Rounded answer is 28.

The correct answer is: 28

Estimated project duration

Firewall Project XT. Using the "complexity weighting" scheme and the function point complexity weighted table shown below, calculate the total function point count. Assume historical data suggest 6 function points equal one person-month.

Question: If 25 people are available for the project, what is the estimated project duration?

(Round the final answers to the nearest integer)

Complexity Weight Table

Number of inputs   **9**   **Rated complexity low**   **3 points**

Number of outputs   **20** **Rated complexity average** **5 points**

Number of inquiries **6**   **Rated complexity average** **5 points**

Number of files   **33** **Rated complexity high**   **10 points**

                                                                 14 points

Number of interfaces **50** **Rated complexity high**

Answer: 8 ✔

The project duration will be approximately 7.9 months if 25 people are available
(197.8333333 / 25) = 7.9

Rounded answer is 8.

The correct answer is: 8

Resources

Firewall Project XT. Using the "complexity weighting" scheme and the function point complexity weighted table shown below, calculate the total function point count. Assume historical data suggest 6 function points equal one person-month.

Question: If the project must be complete in six months, how many people will be needed for the project?

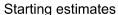**(Round the final answers to the nearest integer)**

Complexity Weight Table

Number of inputs	**9**	**Rated complexity**	**low**	**3 points**
Number of outputs	**20**	**Rated complexity**	**average**	**5 points**
Number of inquiries	**6**	**Rated complexity**	**average**	**5 points**
Number of files	**33**	**Rated complexity**	**high**	**10 points**
Number of interfaces	**50**	**Rated complexity**	**high**	**14 points**

Answer: | 33 | ✓

33.0 people will be needed to complete the project in approximately 6 months   (197.8333333 / 6) = 33.0

The correct answer is: 33

Starting estimates
A good starting point for developing time and cost estimates is

Select one:

- ◉ a. Past experience ✓
- ○ b. Work packages
- ○ c. Work Breakdown Structure (WBS)
- ○ d. Task Analyses
- ○ e. Time and Motion Studies

Your answer is correct.

Past experience is a good starting point for developing time and cost estimates. But past experiences must almost always be refined to reach an acceptable level of accuracy.

The correct answer is: Past experience

Quality of estimates
Which of the following is <u>NOT</u> one of the factors that need to be considered to improve quality of estimates for project times and costs?

Select one:

- ○ a. Planning horizon
- ◉ b. Profit ✓
- ○ c. People
- ○ d. Padding estimates
- ○ e. Project Structure

Your answer is correct.

The correct answer is: Profit

Quality of estimates

Richard is collecting estimates for a house that he will have the funding to build in 12 months. Which of the following factors does Richard need to consider in regard to the quality of these estimates?

Select one:

- ⦿ a. Planning horizon ✓
- ○ b. Padding estimates
- ○ c. Project structure
- ○ d. People
- ○ e. Project duration

Your answer is correct.

If Richard will not have funding to start the project for 12 months, he needs to consider the planning horizon. The accuracy of the time and cost estimates decrease as the planning horizon expands.

The correct answer is: Planning horizon

Large projects

Large projects that have long time horizons and a very high complexity can be referred to as:

Select one:

- ○ a. Mega Projects
- ○ b. High Risk
- ○ c. White Elephants
- ⦿ d. Both Mega Projects and White Elephants ✓

Your answer is correct.

Both terms can be used; the question is to whether or not there is value realized from the project. If no real value, it is definitely a white elephant.

The correct answer is: Both Mega Projects and White Elephants

Question **10**

Correct

Mark 1.00 out of 1.00

Cost
The salary of the project manager and her administrative assistant is classified as direct labor costs.

Select one:

○   True

◉   False ✓

Direct project overhead costs can be tied to project deliverables or work packages. Examples include the salary of the project manager and temporary rental space for the project team.

The correct answer is 'False'.