Complete table

|  |  |  |  |
| --- | --- | --- | --- |
| Number of Workers | Total Output  (Total Product) | Marginal Product of Labor | Average Product of Labor |
| 1 | 12 | 12 | 12 |
| 2 |  | 14 |  |
| 3 | 42 |  |  |
| 4 |  |  | 14 |
| 5 |  |  | 13.6 |
| 6 |  | 10 |  |
| 7 | 84 |  |  |
| 8 |  | 4 |  |
| 9 |  |  | 10 |
| 10 |  | 1 |  |
| 11 | 91 |  |  |

1. At what point (in terms of workers) do we see evidence of diminishing marginal product?
2. Is the slope of the Total Product curve steeper when 2 workers are employed or when 5 workers are employed?

Complete the following table. Do not complete any cell with “—“ in it.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Q | FC | VC | TC | MC | AFC | AVC | ATC |
| 1 | 80 |  | 110 | “—“ |  |  |  |
| 2 |  |  |  | 25 |  |  |  |
| 3 |  |  |  |  |  |  | 51 |
| 4 |  |  |  |  |  | 21 |  |
| 5 |  |  |  | 6 |  |  |  |
| 6 |  |  |  |  |  | 17.5 |  |
| 7 |  |  | 210 |  |  |  | 30 |
| 8 |  |  |  |  |  | 21.25 |  |

Some of the entries are not whole numbers. Round decimals off to a single decimal point (for example, 58.325 would be 58.3).

a. At what level of output are your average variable costs minimized?

b. At what level of output are your average total costs minimized?