

Quantitative session

1) (5 points) What is the sum of the digits of the positive integer n where $n < 99$?

(1) n is divisible by the square of the prime number y .

(2) y^4 is a two-digit odd integer.

- A. Statement 1 ALONE is sufficient to answer the question, but statement 2 alone is NOT sufficient.
- B. Statement 2 ALONE is sufficient to answer the question, but statement 1 alone is NOT sufficient.
- C. BOTH statements 1 and 2 TOGETHER are sufficient to answer the question, but NEITHER statement ALONE is sufficient
- D. Each statement ALONE is sufficient to answer the question.
- E. Statement 1 and 2 TOGETHER are NOT sufficient to answer the question.

The correct answer is C.

2) (5 points) If x is a positive integer, is $x! + (x + 1)$ a prime number? (1) $x < 10$ (2) x is even

- A. Statement 1 ALONE is sufficient to answer the question, but statement 2 alone is NOT sufficient.
- B. Statement 2 ALONE is sufficient to answer the question, but statement 1 alone is NOT sufficient.
- C. BOTH statements 1 and 2 TOGETHER are sufficient to answer the question, but NEITHER statement ALONE is sufficient
- D. Each statement ALONE is sufficient to answer the question.
- E. Statement 1 and 2 TOGETHER are NOT sufficient to answer the question.

The correct answer is E.

3) (5 points) Is $\sqrt{x + y}$ an integer?

(1) $x^3 = 64$ (2) $x^2 = y - 3$

- A. Statement 1 ALONE is sufficient to answer the question, but statement 2 alone is NOT sufficient.
- B. Statement 2 ALONE is sufficient to answer the question, but statement 1 alone is NOT sufficient.
- C. BOTH statements 1 and 2 TOGETHER are sufficient to answer the question, but NEITHER statement ALONE is sufficient
- D. Each statement ALONE is sufficient to answer the question.
- E. Statement 1 and 2 TOGETHER are NOT sufficient to answer the question.

The correct answer is C.

4) (3 points) How many prime numbers between 1 and 100 are factors of 7,150?

- A. One
- B. Two
- C. Three
- D. Four
- E. Five

Answer: D.

Integrated Reasoning

1) (4 points)



The change in the total production in the world has a positive trend. The largest amount of resources for production is used in countries G20

- A. True
- B. False
- C. Cannot be determined
- D. Statement is partly true, partly wrong

Answer: B.

2) (4 points) Someday plc is introducing a set of performance measures in its finance function. A key measure for the sales ledger part of the system is the number of invoices recorded per hour of employee time. The point of reference for this performance measure is

- A) Productivity
- B) Activity
- C) Profitability
- D) Economy

Answer: A.

3) (4 points) The oil industry is an example of which kind of market structure?

- A) Perfect competition
- B) Monopoly
- C) Duopoly
- D) Oligopoly

Answer: D.

1) (5 points) Pap plc makes a single product with five operatives working five machines in a 35 hour week, for which they are paid £7.50 per hour. National insurance etc, adds

another £150 to the weekly labour bill. Last week the gross cost of labour was £1,950. In which internal source should the managers of Pap plc refer to identify why the bill was this size?

- A) The payroll
- B) The ledger accounts
- C) The machine logs
- D) The workers

Answer: A.