ALL BRANCHES

GENERAL APTITUDE

Quantitative Aptitude

Super 1500

Lecture No.- 01

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Topics to be Covered

Topic Quantitative Aptitude

[MCQ] [Marks 2]

#Q. A man went out for evening walk in between 5pm to 6pm and was back home in between 6pm to 7pm. After reaching home, he observed that minute hand and hour hand has interchanged their positions. At what time did the man went out for walk?

A $6:32\frac{8}{11}$

B 6:30

C $6:32\frac{4}{13}$

D 6:33

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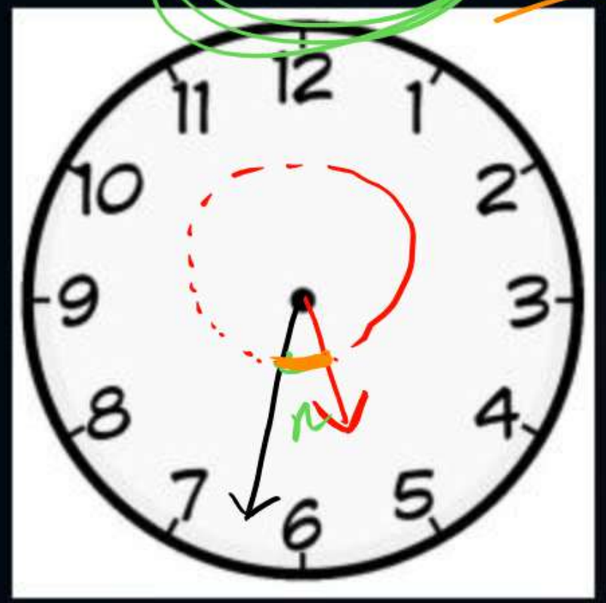
5-6 Out

$5:32\frac{4}{13}$



$\frac{150+\frac{360}{13}}{5.5}$

$H \cdot H \frac{1}{2}^\circ \Rightarrow M \cdot H \cdot 6^\circ$

$H \cdot H 1^\circ \Rightarrow M \cdot H \cdot 12^\circ$

$H \cdot H x^\circ \Rightarrow M \cdot H \cdot 12x^\circ$

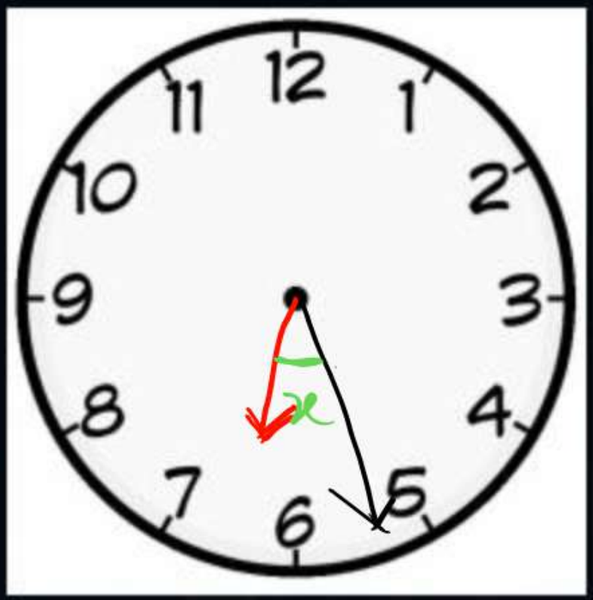
$360 - x = 12x$

$\Rightarrow 360 = 13x$

$\therefore x = \frac{360}{13}$

$= 32\frac{4}{13}$ min

6-7 Back



$\frac{1950+360}{13} \times \frac{2}{11}$

$= \frac{2310}{13} \times \frac{2}{11} = \frac{420}{13}$

[MCQ]

[Mark 1]

#Q. Due to 20% drop in price of apples, Tarun can buy 5 more apples for ₹100. Before price dropped, what was the price of 1 apple?

A ₹4.50

B ₹5.00

C ₹4.80

D ₹4.00

$$0.8 \times \frac{100}{x} = \frac{100}{x+5}$$

$$\Rightarrow \frac{80}{x} = \frac{100}{x+5}$$

$$\Rightarrow 4x + 20 = 5x$$

$$x = 20$$

$$\frac{100}{20} = 5$$

$$0.8x = 4$$

$$x = \frac{4}{0.8} = \frac{40}{8}$$

[MCQ] [Mark 2]

#Q. The ratio of revenues of two business firms, A and B, is 4:7. The revenue of firm A increased by 50% and that of firm B decreased by 25%. Thus the difference between the revenues of the two firms become ₹4500, then what was the original revenue of firm B ?

A ₹ 28000

B ₹ 42000

C ₹ 31500

D ₹ 49000

A 4x B 7x

$A = 1.5 \times 4x = 6x$

$B = 0.75 \times 7x = 5.25x$

$0.75x = 4500$

$x = \frac{4500}{0.75} = \frac{450000}{75} = 6000$

$7 \times 6000 = 42000$

[MCQ]

$A = \frac{S}{No.}$ $\quad$ $A \times No. = Sum$

[Mark 1]

#Q. The average weight of certain number of boys of class VII is 45kg. When 5 more boys join the group, the average weight of all the boys become 44kg. If the average weight of those 5 boys who joined the group is 40, how many boys were initially in the group?

(x)

A 22

B 18

C 25

D 20

$$44 = \frac{45x + 5 \times 40}{x + 5}$$

$$\Rightarrow 44x + 220 = 45x + 200$$

$$x = 20$$

[MCQ]

[Marks 2]

#Q. The sum of squares of two consecutive even number is 340. What is the difference between the cubes of these two consecutive even numbers?

A. 1016

B. 1028

C. 1280

D. 1660

$12^3 = 1728$

$14^3 = 2744$

12 → x

14 → $x+2$

$x^2 + (x+2)^2 = 340$

$\Rightarrow x^2 + x^2 + 4 + 4x = 340$

$\Rightarrow 2x^2 + 4x = 336$

$\Rightarrow 2x^2 + 4x - 336 = 0$

$\Rightarrow x^2 + 2x - 168 = 0$

$\Rightarrow x^2 + 14x - 12x - 168 = 0$

$\Rightarrow x(x+14) - 12(x+14) = 0$

$(x+14)(x-12) = 0$

$x = -14$ $\quad x = 12$

[MCQ]

[Mark 2]

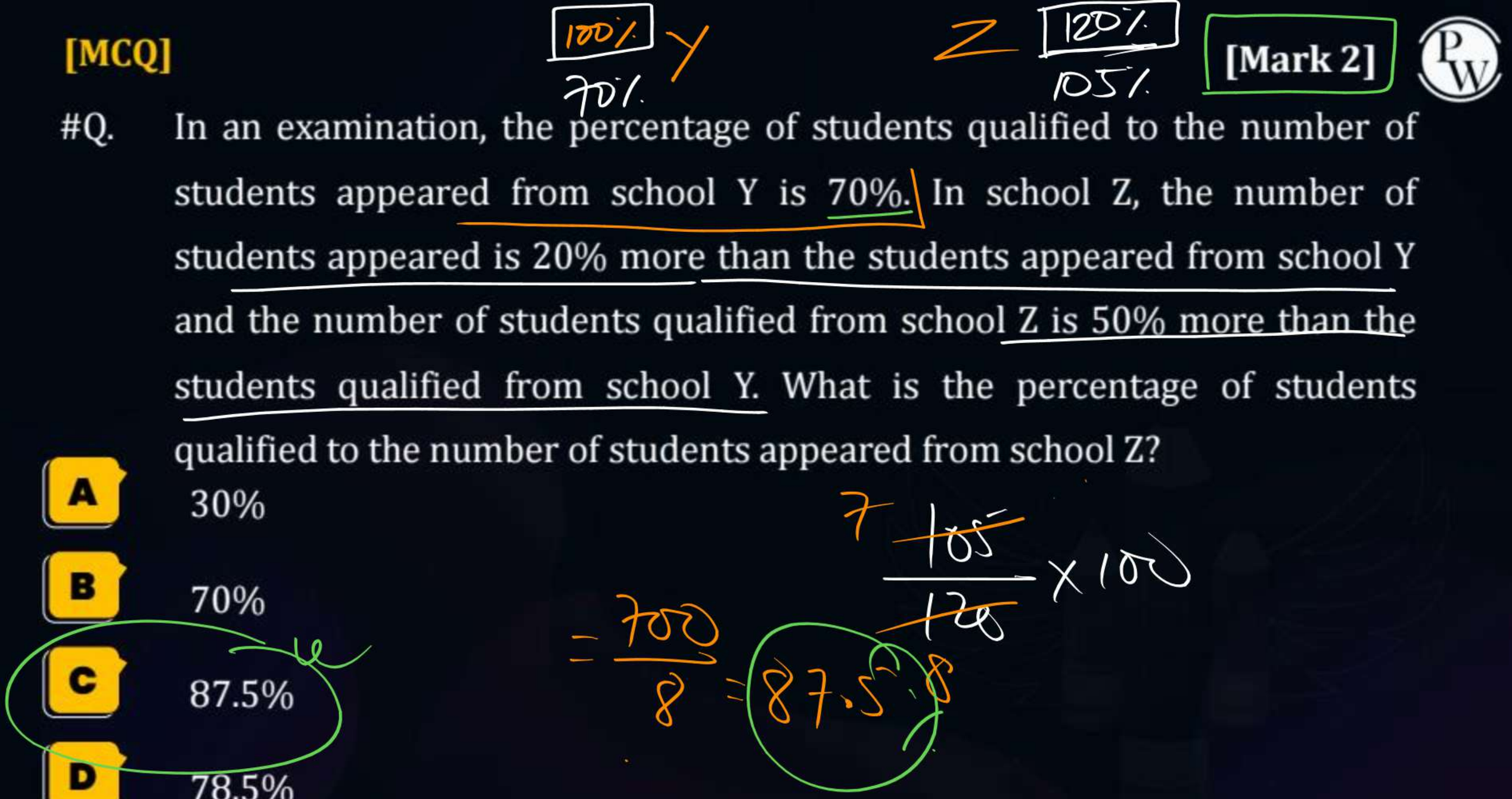
#Q. In an examination, the percentage of students qualified to the number of students appeared from school Y is 70%. In school Z, the number of students appeared is 20% more than the students appeared from school Y and the number of students qualified from school Z is 50% more than the students qualified from school Y. What is the percentage of students qualified to the number of students appeared from school Z?

A 30%

B 70%

C 87.5%

D 78.5%



[MCQ]

[Mark 2]

#Q. There are two candidates P and Q in an election. During campaign 40% of the voters promised to vote for P, and the rest for Q. However, on the day of election, 15% of the voters went back on their promise to vote for P and instead voted for Q. 25% of the voters went back on their promise to vote for Q and instead voted for P. Suppose, P lost by 2 votes, then what was the total number of voters?

2% of T. Voters = 2

100

		P	Q
		40%	60%
		-6	+6
		+15	-15
		49%	51%

A 100

B 110

C 90

D 95

[MCQ]

[Mark 1]

#Q. A number A4571203B is divisible by 18. What are the possible values of A and B respectively?

2 × 9

A + B = 14

12 + 2

10 4

8 6

B = 2, 4, 6, 8, 0

6 + 8

A. 2; 3 ✗

B. 3; 4

C. 6; 8

D. 1; 2

A + 4 + 5 + 7 + 1 + 2 + 0 + 3 + B =

22 + A + B =

5

A = 3 | 5

B = 2 | 0

27

36

[MCQ]

[Marks 2]

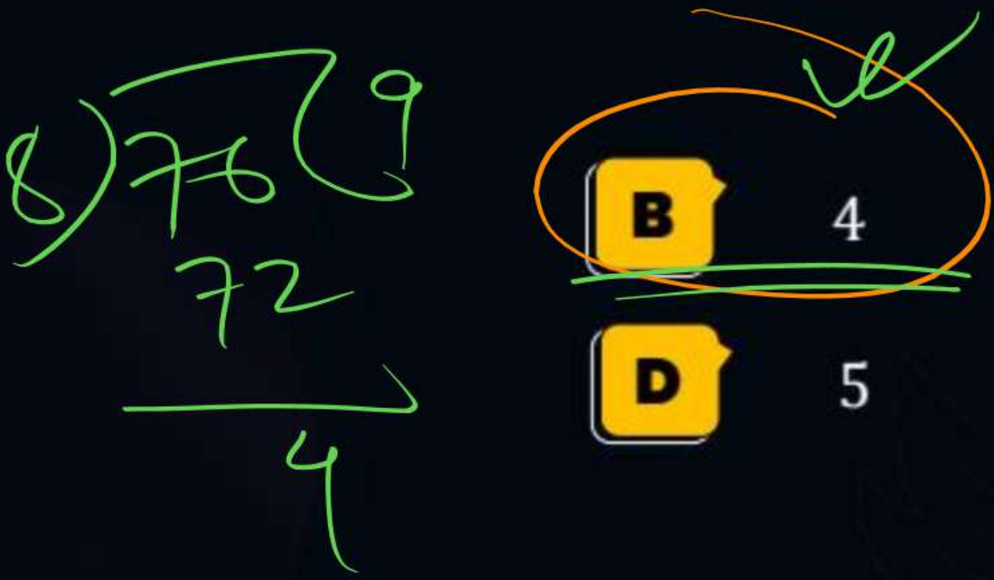
#Q. A number N when divided by 120 gives a remainder 76. What is the remainder obtained when the same number is divided by 8?

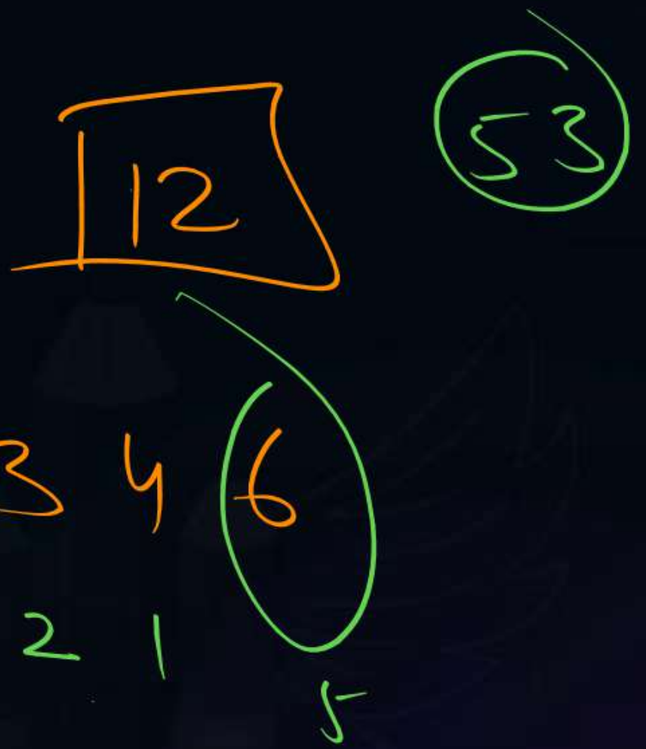
A 2

B 4

C 3

D 5





[MCQ]

[Marks 1]

#Q. In a class there were 80 boys and 70 girls. If 25% of boys and 30% of girls passed in an exam find the fail % of the class.

80 ⇒ 20

70 ⇒ 21

$\frac{41}{150} \times 100$

$= \frac{82}{3} = 27.\overline{3}$

A 27.5%

B 27.3%

C 72.6%

D 72.5%

$\frac{109}{150} \times 100$

$100 - 27.\overline{3}$

$= 72.\overline{6}\%$

[MCQ]

[Marks 2]

#Q. The population of a city was 9000. If the male population increased by 15% and the female population increased by 16% the total population increased by 1390. The number of men were

A 4750

B 4000

C 4250

D 5000

$M = \frac{50}{0.01}$

$= 5000$

$(M + W = 9000) \times 1.16$

$1.15M + 1.16W = 10390$

$1.16M + 1.16W = 10440$

$1.15M + 1.16W = 10,390$

$0.01M = 50$

[MCQ]

[Mark 1]

#Q. By selling an article for ₹ 1000 the person loses 20%. At what price it has to be sold to gain 30%?

0.8 ⇒ 1000

1.3 ⇒ ?

A ₹ 1625

B ₹ 1680

C ₹ 1675

D ₹ 1500

$1000 \times \frac{1.3}{0.8}$

$\frac{250}{1000} \times \frac{13}{8}$

$= 1625$

[MCQ]

[Mark 2]

#Q. A trader offers to give two articles free for every 10 articles I purchase. I get a total of 10 articles free for my purchase and I sell them all at a rate such that I get back my investment from the sale of just 10 of the articles. What is my overall percentage of profit?

A 100%

B 500%

C 150%

D 250%

[MCQ] [Marks 2]

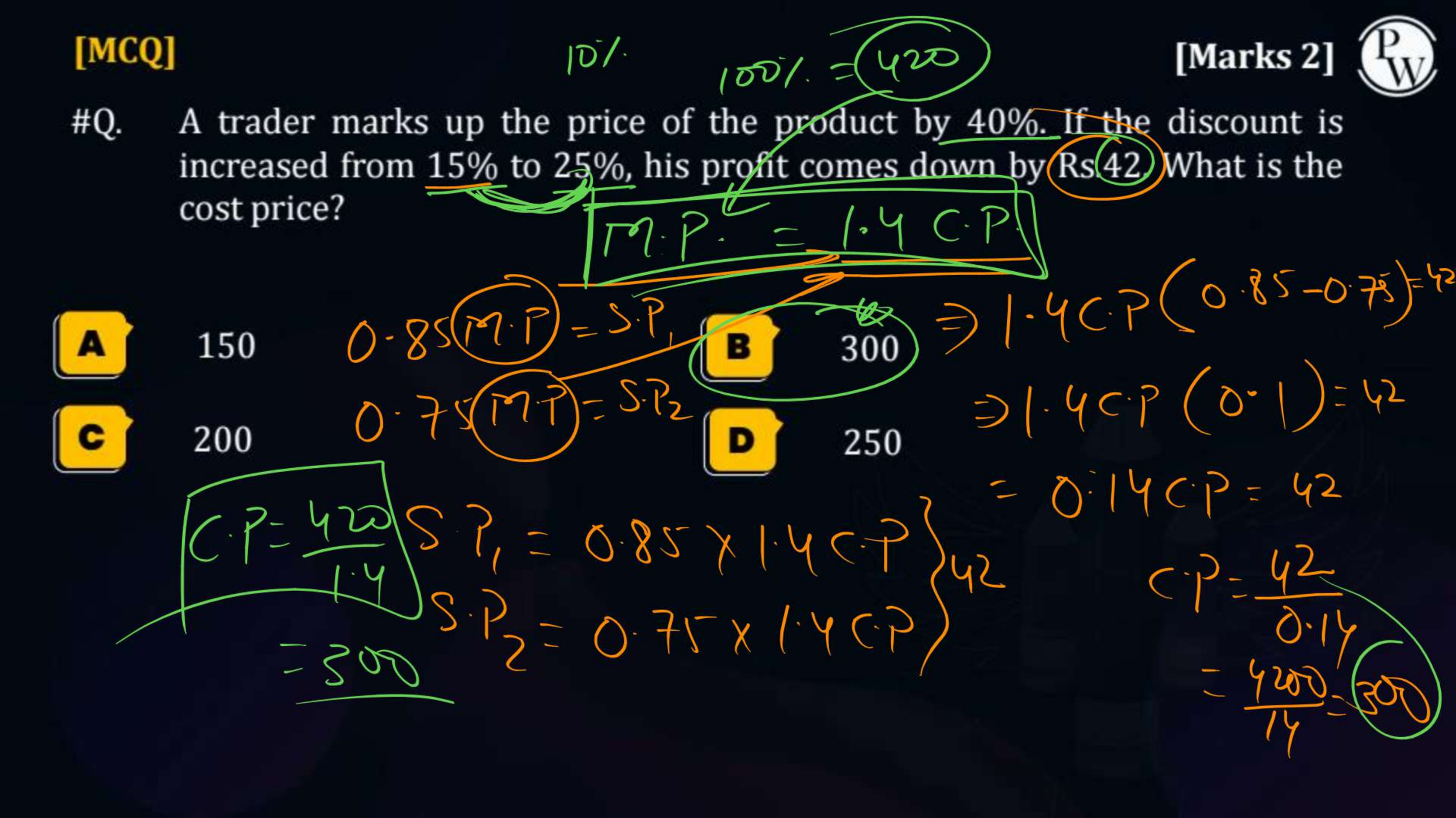
#Q. A trader marks up the price of the product by 40%. If the discount is increased from 15% to 25%, his profit comes down by Rs 42. What is the cost price?

A 150

B 300

C 200

D 250



[MCQ]

[Marks 1]

#Q. At what angle the hands of a clock are inclined when the time is 15 minutes to five?

4:45

360

127.5

232.5

4 ⇒ 120°

45 × 5.5 ⇒ 247.5

127.5

A 232.5°

B 67.5°

C 125°

D 178.5°

2 mins Summary

Topic Super 1500

Q 15 → Quantitative

Q 15

THANK - YOU