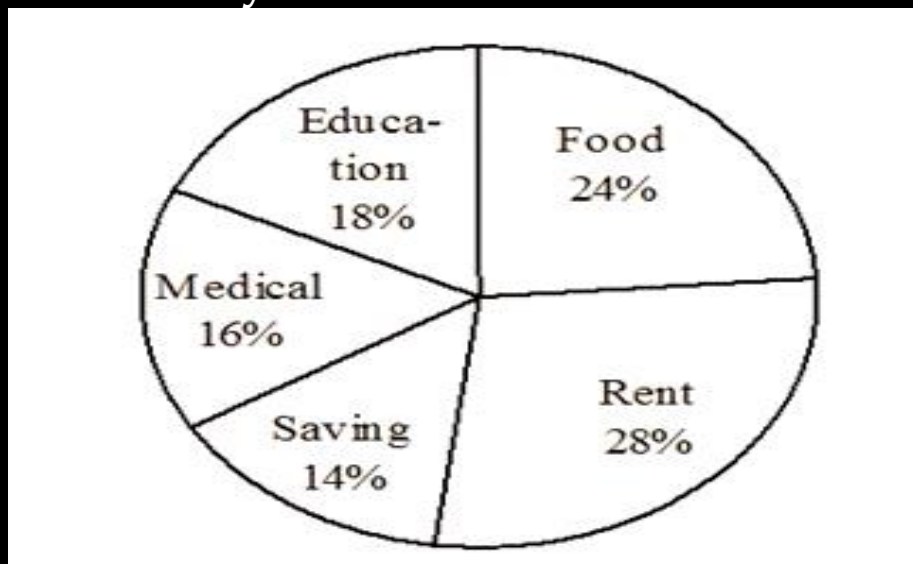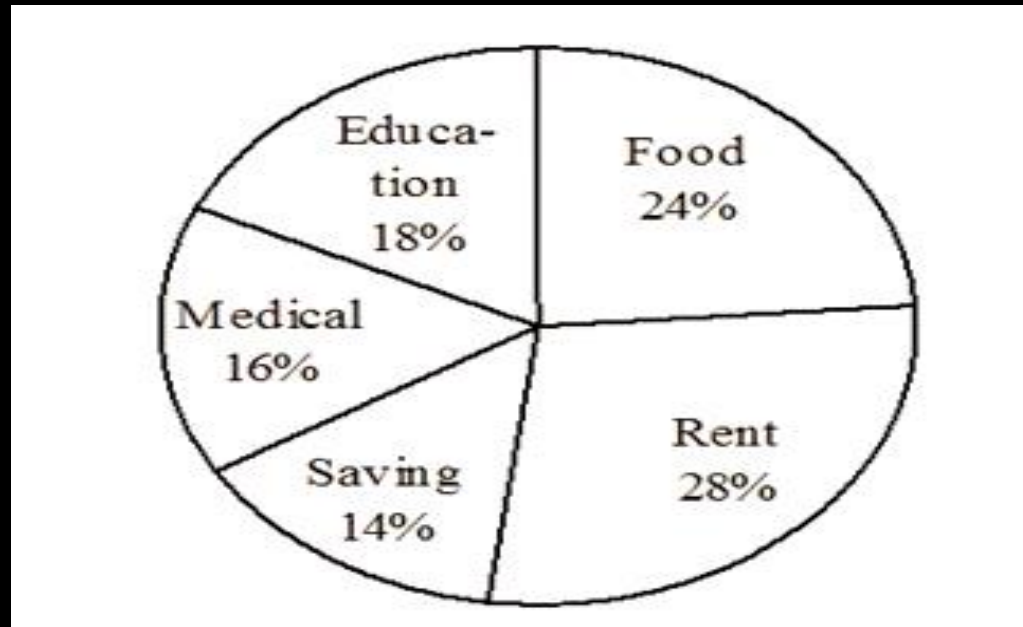# Worksheet on DI

Directions (1-3): Following pie chart shows the monthly expenditure of a man on different items. His income is Rs 8,000 monthly.

1. If his salary is Rs 8,000 then how much he pays for food?
(A) Rs 1800   (B) Rs 1920   (C) Rs 2040   (D) Rs 2200
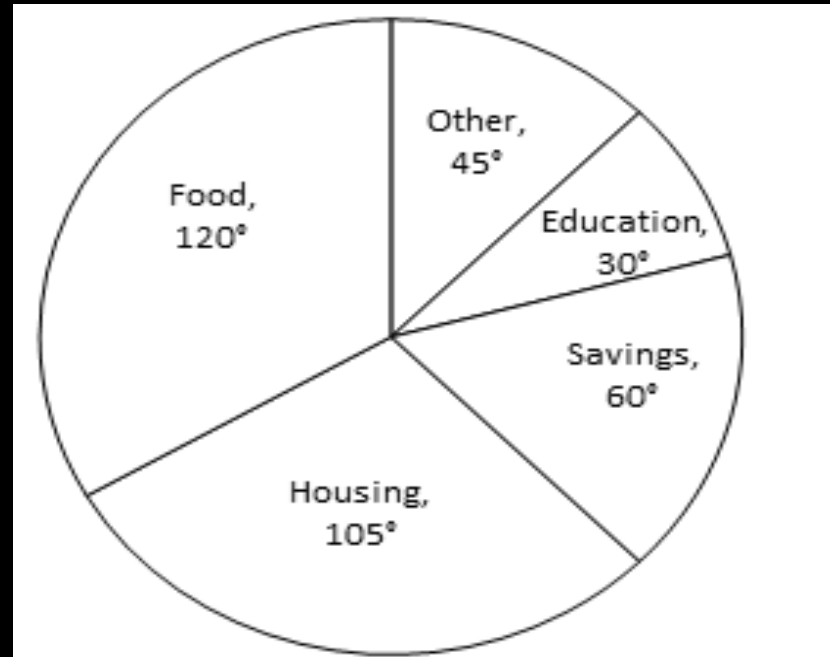
2. What is his monthly saving?
(A) Rs 1920   (B) Rs 1720   (C) Rs 1120   (D) Rs 1260

3. What is the difference between money he spent on education and medical?
(A) Rs 360   (B) Rs 260   (C) Rs 160   (D) Rs 60

Directions (4-8): The pie-chart given here shows expenditures incurred by a family on various items and their savings, which amounts to Rs. 8,000 in a month.
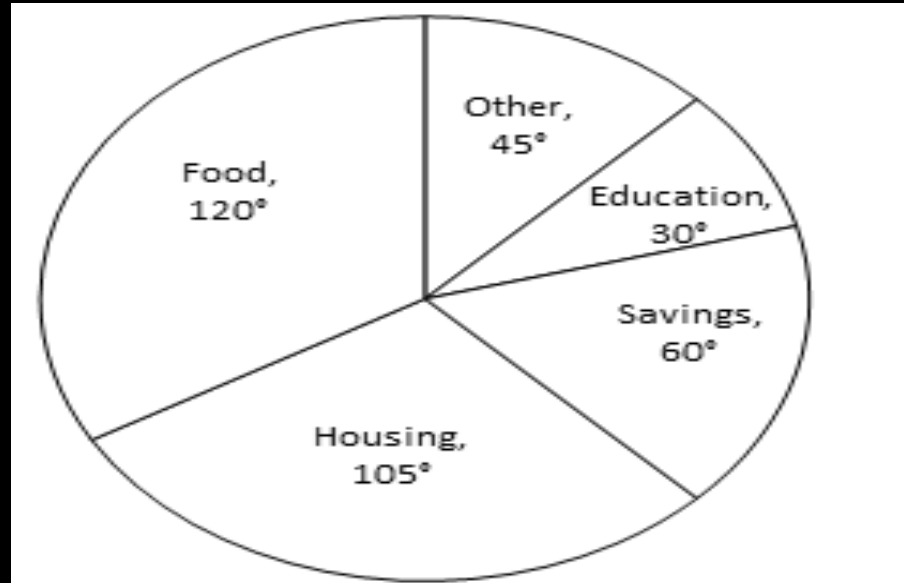

4. How much expenditure is incurred on education?
(a) Rs. 3,000   (b) Rs. 5,000   (c) Rs. 4,000   (d) Rs.7,000
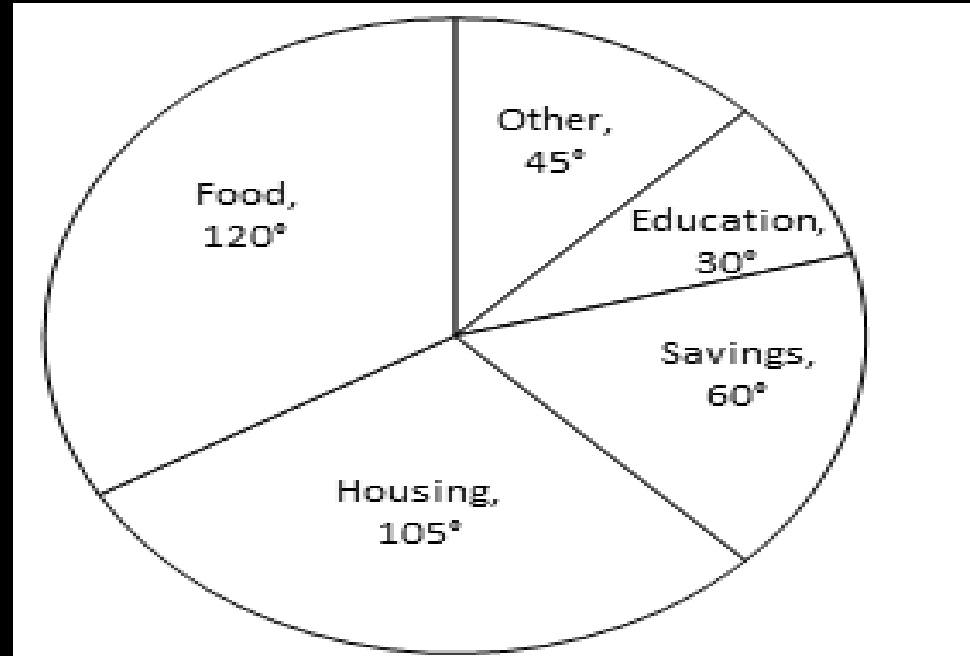
5. The ratio of the expenditure on food to the savings is

(a) 3 : 2   (b) 2 : 1   (c) 4 : 3   (d) 3 : 4

6. What is the total expenditure of the family for the month?

(a) Rs. 40,000   (b) Rs. 48,000   (c) Rs. 45,000   (d) Rs. 50,000

7. How much more amount is spent on food than on housing?
(a) Rs. 1,000   (b) Rs. 3,000   (c) Rs. 2,000   (d) Rs. 2,500

8. How much expenditure is incurred on other?
(a) Rs. 4,500   (b) Rs. 5,000   (c) Rs. 6,000   (d) Rs. 7,500

Directions (9-13): The following line graph shows the total production of Waterman and Paper mate pens over five different years. Study the graph carefully and answer the related questions to the graph given below:
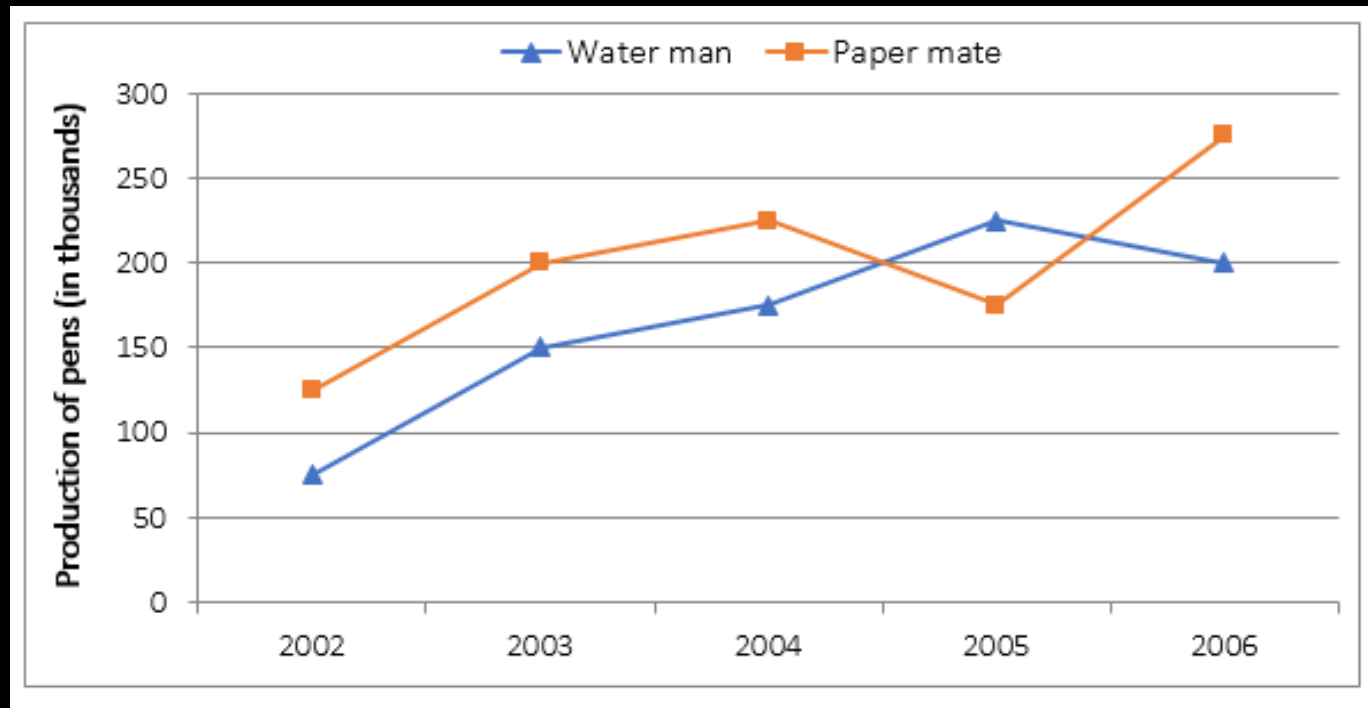
9. What is the ratio of Water man pens sold in the years 2002 and 2004 together to Paper mate pens sold in same two years together?
(a) 7 : 5   (b) 5 : 7   (c) 3 : 5   (d) 5 : 3
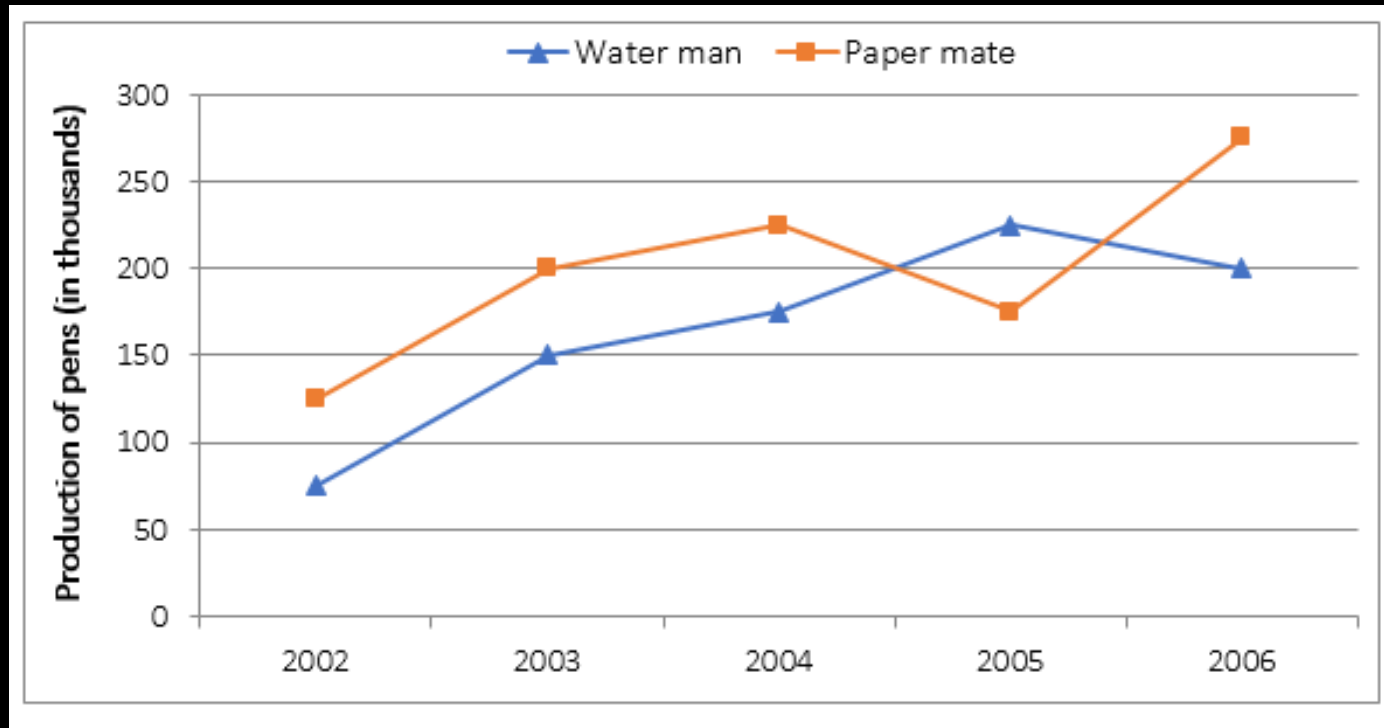
10. What is the average production of Water man pens over all the years?
(a) 165 thousand (b) 170 thousand (c) 185 thousand (d) 155 thousand
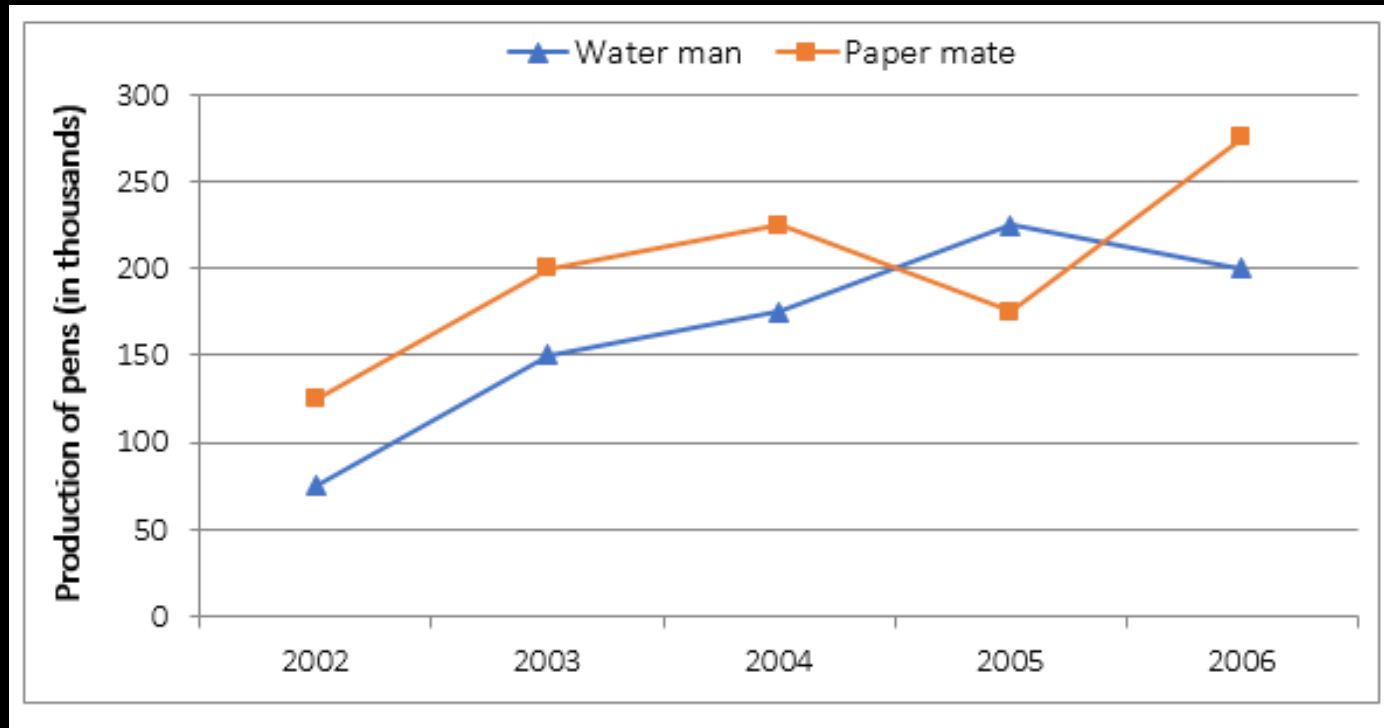
11. The number of Paper mate pens sold in the year 2005 is approximately what percent more or less than the number of Water man pens sold in the same year?
(a) 24%   (b) 25%   (c) 22%   (d) 20%
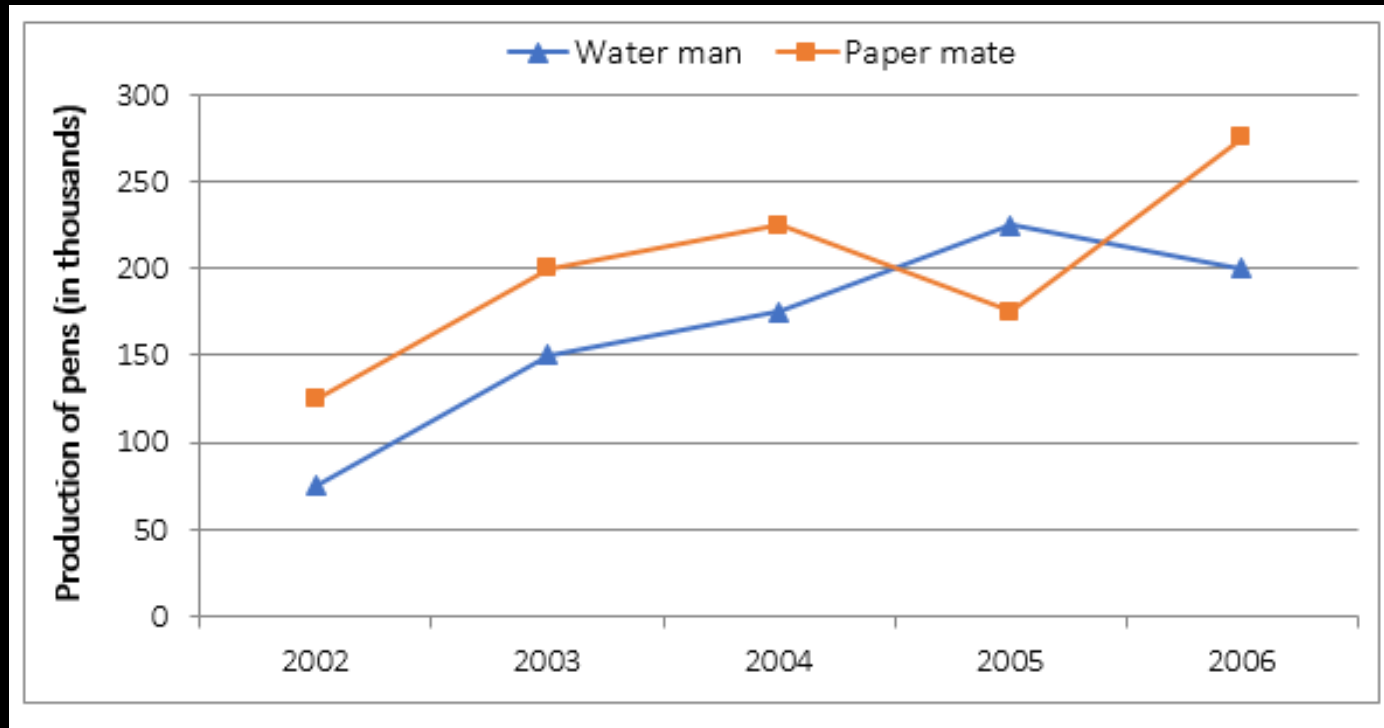
12. What is the difference between total no. of Water man pens and Paper mate pens sold over all the years?
(a) 170 thousand (b) 172 thousand (c) 175 thousand
(d) 165 thousand
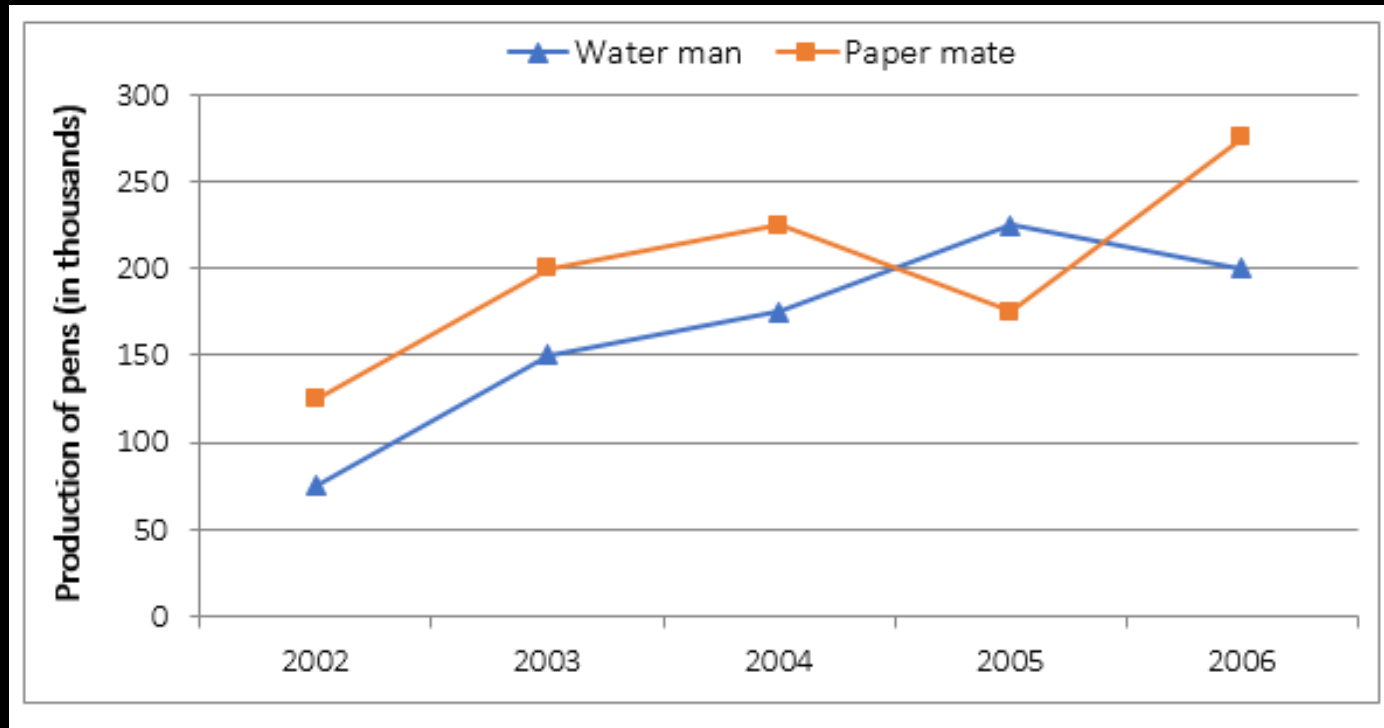
13. In 2007, if production of Water man pens is increased by 20% than the previous year while production of Paper mate pens remains constant then what is difference between Water man pens and Paper mate pens for the years 2005, 2006 and 2007 together?
(a) 60 thousand   (b) 70 thousand   (c) 65 thousand
(d) 50 thousand

Directions (14 - 16): Following line graph shows sugar produced by India and Cuba during the period of 2001–2006.
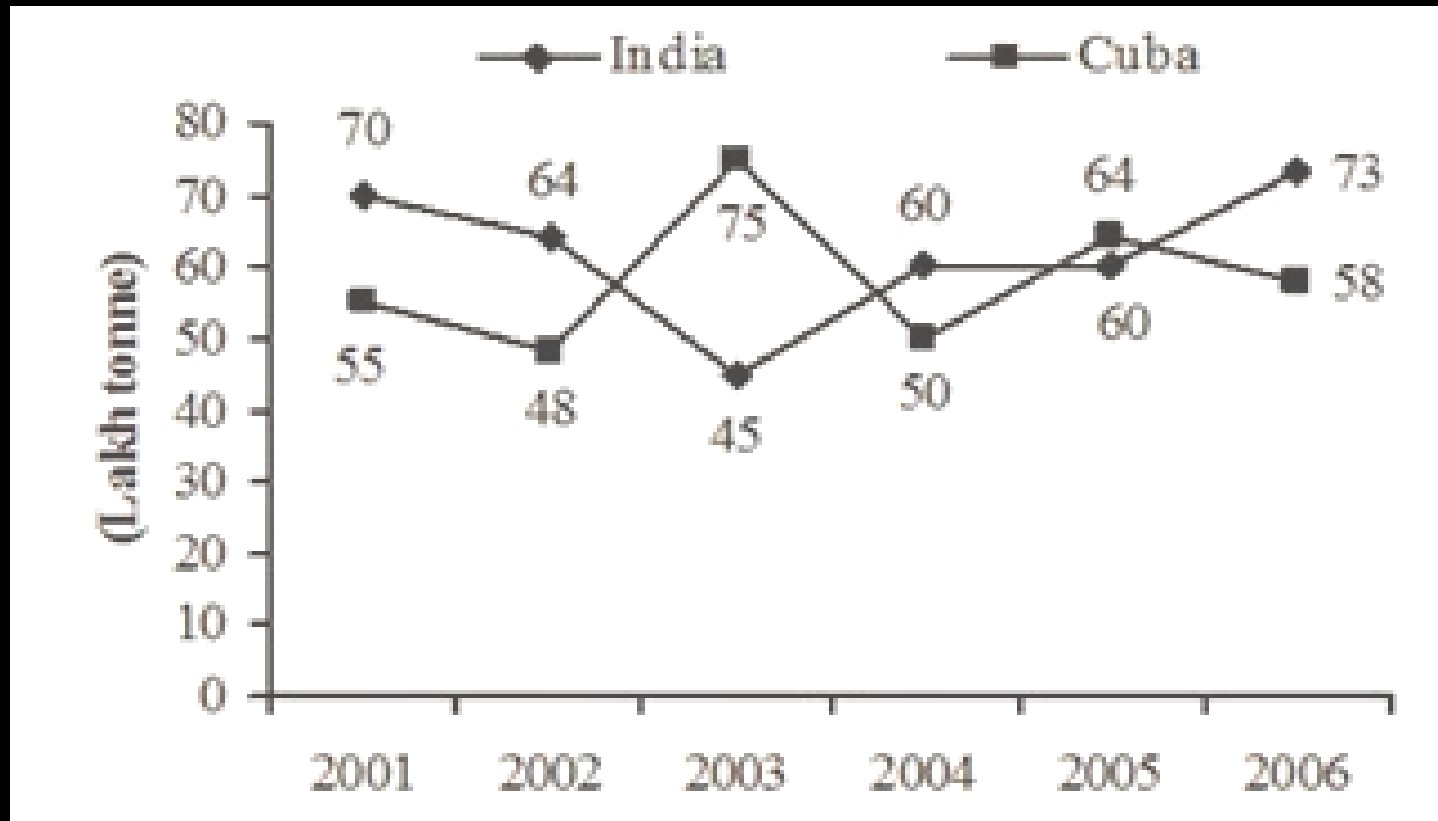
14. What is the average production of Cuba from 2001 to 2004?
(A) 67   (B) 64   (C) 63   (D) 57
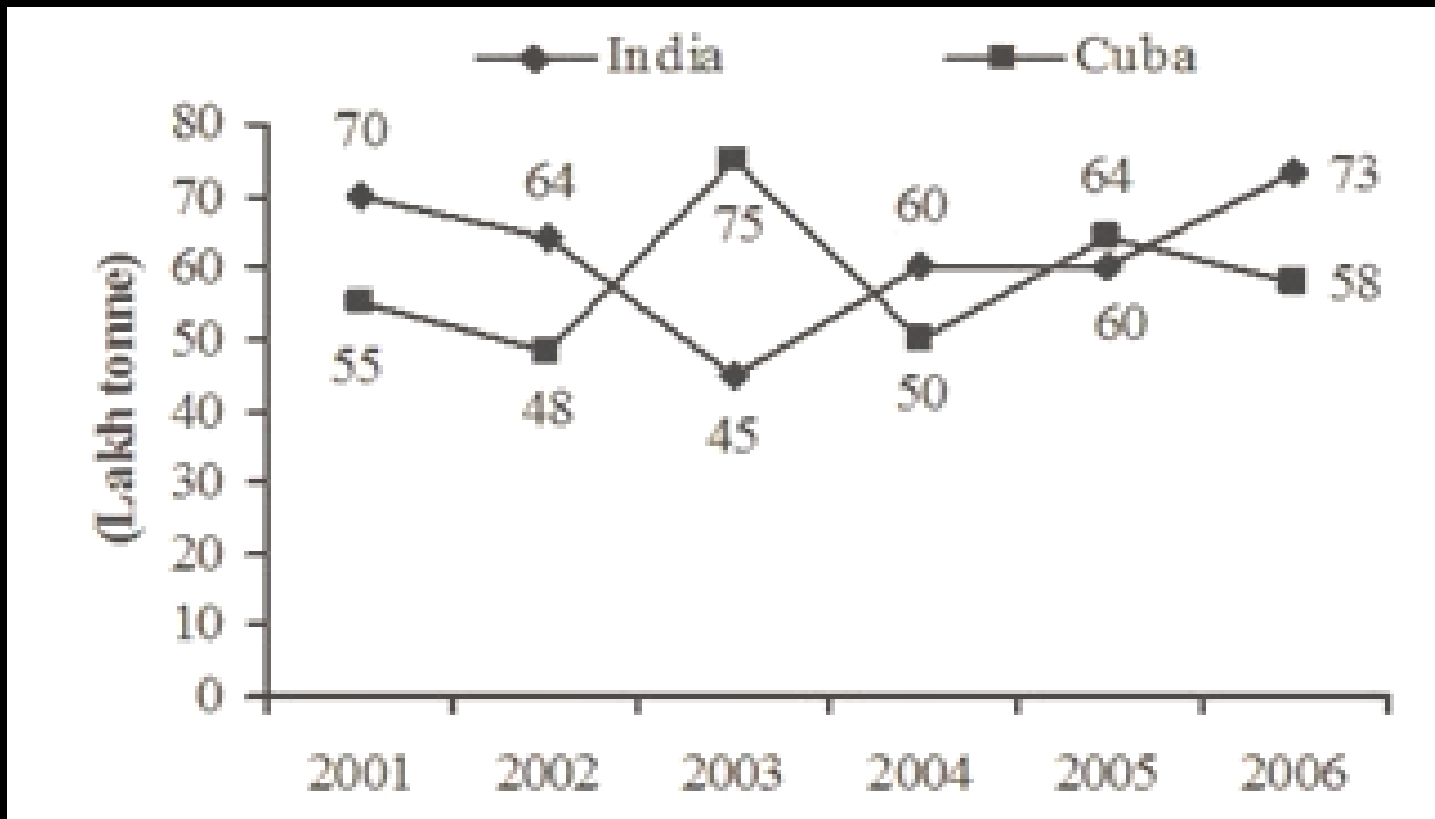
15. What is the ratio of the maximum production to average production for India?
(A) 73 : 57   (B) 73 : 59   (C) 73 : 62   (D) 73 : 64

Chart: India vs Cuba production (Lakh tonne), 2001–2006

India: 70, 64, 45, 60, 60, 73
Cuba: 55, 48, 75, 50, 64, 58
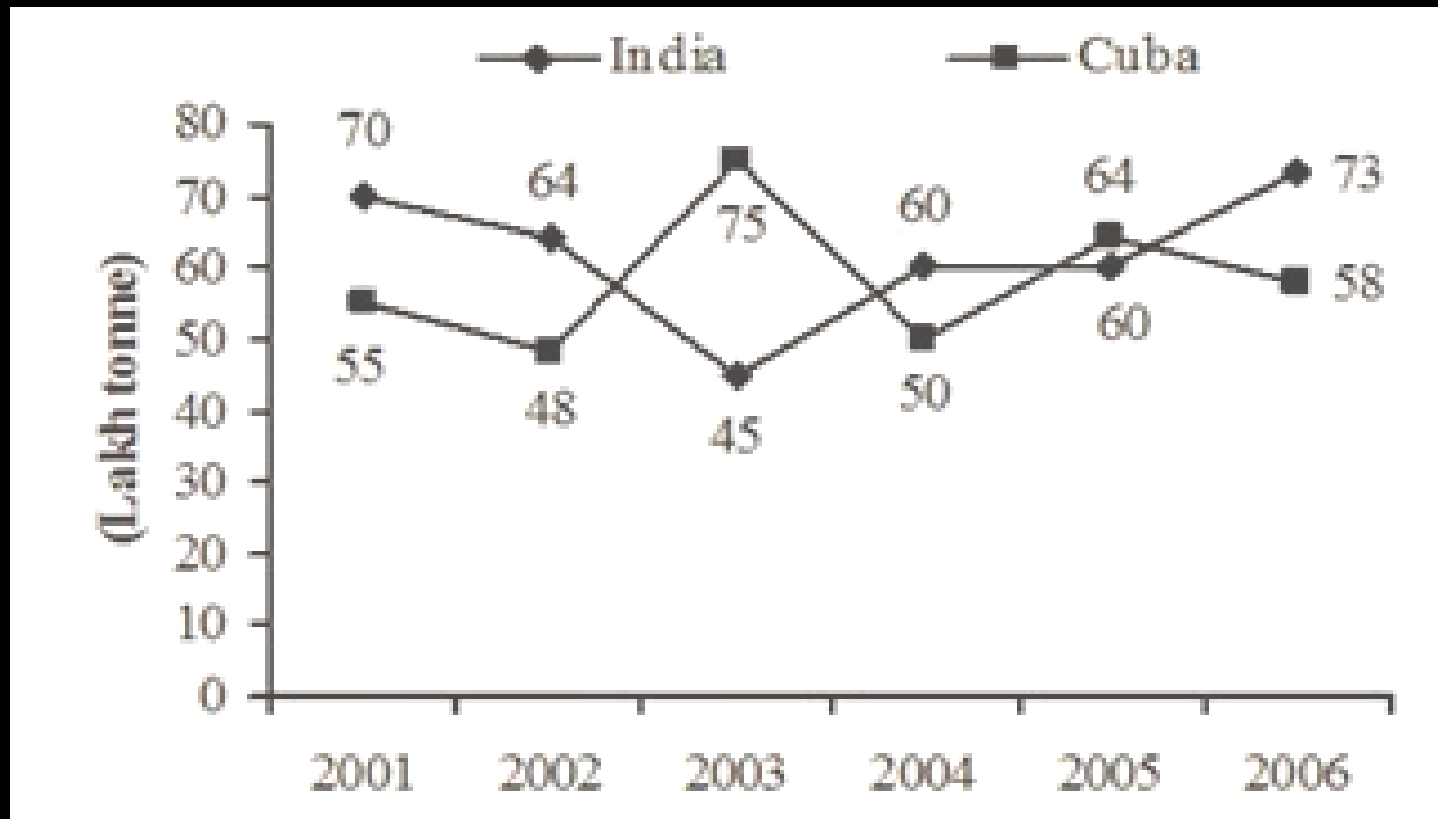
16. Difference of total production of these two countries from 2001–2006?
(A) 18   (B) 20   (C) 22   (D) 24

Directions (17-19): The pie-chart given below shows the percentage of 3600 students enrolled in different hobby classes in a school.

17. What is the total number of students enrolled in stitching and Drama classes together?
(a) 684   (b) 846   (c) 648   (d) 864

18. How many students are enrolled in painting?
(a) 550   (b) 540   (c) 450   (d) 520
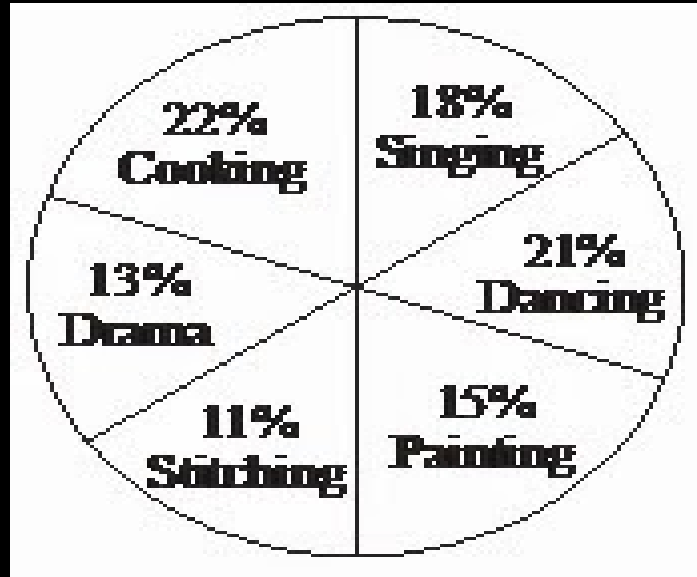
19. Number of students enrolled in painting classes are approximately what percent of those enrolled in singing classes?
(a) 83%   (b) 92%   (c) 78%   (d) 66%

Directions (20-22): The following table shows the total number of persons who qualified CTET in six different years and the ratio of male to female in them. Study the table carefully and answer the following questions.

Year	Total qualified candidate	Ratio of male to female
2010	21500	4 : 1
2011	24,500	7 : 3
2012	27,300	7 : 5
2013	30,200	13 : 7
2014	32,400	11 : 5
2015	35,200	6 : 5

20. What is the total number of female candidates who qualified the CTET exam in years 2010, 2012 and 2014 together?

(a) 24,900   (b) 26,500   (c) 25,800   (d) 23,800

Year	Total qualified candidate	Ratio of male to female
2010	21500	4 : 1
2011	24,500	7 : 3
2012	27,300	7 : 5
2013	30,200	13 : 7
2014	32,400	11 : 5
2015	35,200	6 : 5

21. The number of male candidates who qualified in year 2011 are approximately what percent of total number of candidates who qualified the exam in year 2010?

(a) 88%   (b) 80%   (c) 72%   (d) 66%

Year	Total qualified candidate	Ratio of male to female
2010	21500	4 : 1
2011	24,500	7 : 3
2012	27,300	7 : 5
2013	30,200	13 : 7
2014	32,400	11 : 5
2015	35,200	6 : 5

22. What is the difference between the number of male candidates who qualified in the year 2013 and number of female candidates who qualified in the year 2015?
(a) 3,630   (b) 3,450   (c) 3,600   (d) 3,360

Direction (23-27): Study the following table to answer the given questions: -
Percentage of marks obtained by six students in six subjects

Subjects →	English	History	Computer	Math	Science	Economics
(Maximum marks) Students ↓	60	50	100	150	120	80
Vinay	90	80	100	90	95	70
Arun	75	70	90	40	90	95
Ajit	60	40	60	75	75	85
Ramesh	100	60	85	85	55	80
Sonu	50	90	75	50	70	75
Gaurav	80	70	90	60	80	90

23. What are total marks obtained by Sonu in all subjects?
(a) 430 　　　　(b) 431 　　　　(c) 269 　　　　(d) 369

Subjects → (Maximum marks) → Students ↓	English 60	History 50	Computer 100	Math 150	Science 120	Economics 80
Vinay	90	80	100	90	95	70
Arun	75	70	90	40	90	95
Ajit	60	40	60	75	75	85
Ramesh	100	60	85	85	55	80
Sonu	50	90	75	50	70	75
Gaurav	80	70	90	60	80	90

24. What is an average mark obtained by these six students in History?
(a) 34.167   (b) 38.125   (c) 24.167   (d) 25

Subjects → (Maximum marks) Students ↓	English 60	History 50	Computer 100	Math 150	Science 120	Economics 80
Vinay	90	80	100	90	95	70
Arun	75	70	90	40	90	95
Ajit	60	40	60	75	75	85
Ramesh	100	60	85	85	55	80
Sonu	50	90	75	50	70	75
Gaurav	80	70	90	60	80	90

25. What is ratio of marks scored by Ramesh in English and History together to that of Sonu in same subject together?
(a) 15 : 16   (b) 2 : 1   (c) 6 : 5   (d) 1 : 2

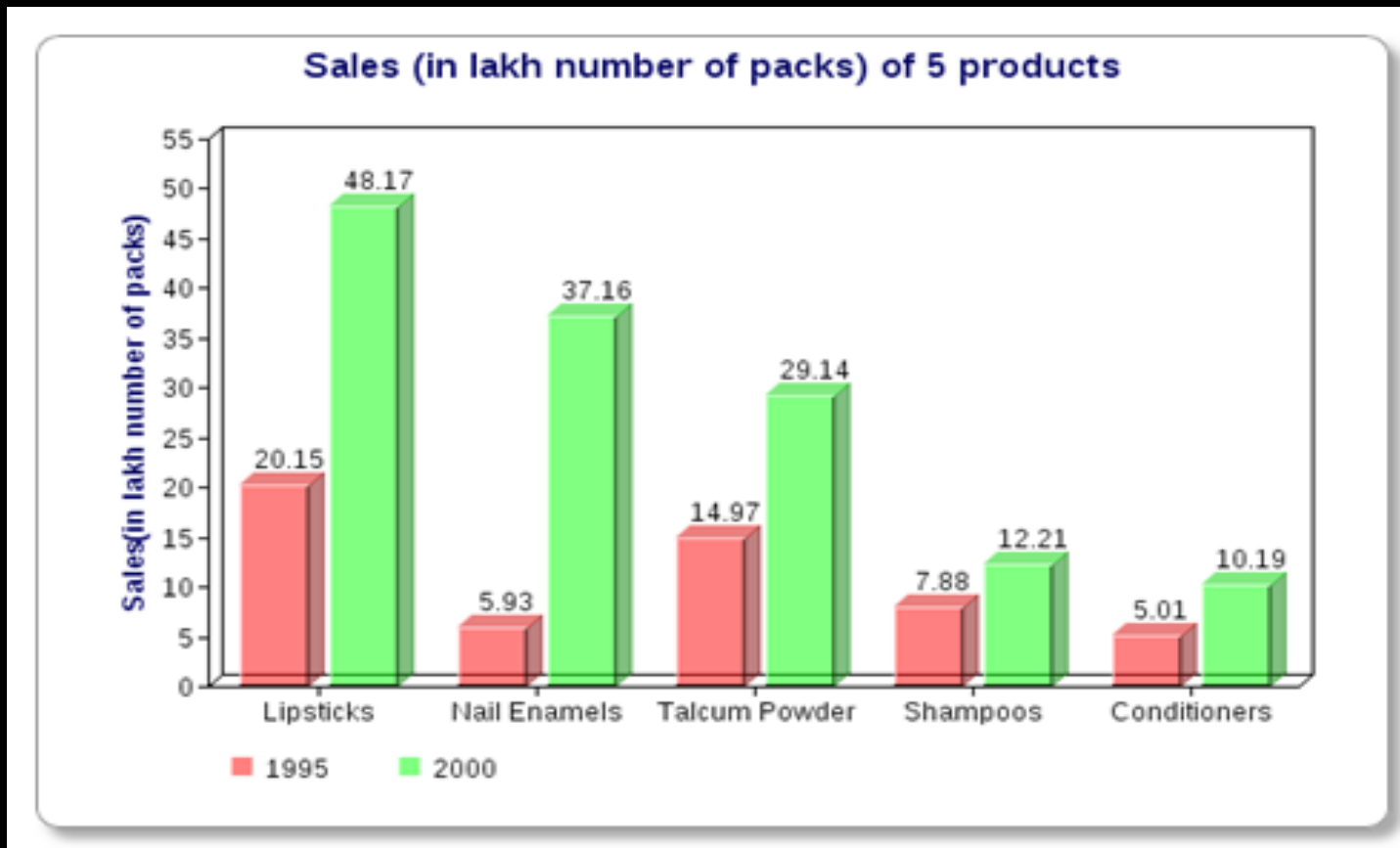| Subjects → (Maximum marks) Students ↓	English 60	History 50	Computer 100	Math 150	Science 120	Economics 80
Vinay	90	80	100	90	95	70
Arun	75	70	90	40	90	95
Ajit	60	40	60	75	75	85
Ramesh	100	60	85	85	55	80
Sonu	50	90	75	50	70	75
Gaurav	80	70	90	60	80	90

26. What is difference between the marks obtained by Gaurav in English, history and economics and by Ajit in same subjects?
(a) 31   (b) 21   (c) 19   (d) 17

Subjects →	English	History	Computer	Math	Science	Economics
(Maximum marks) → Students ↓	60	50	100	150	120	80
Vinay	90	80	100	90	95	70
Arun	75	70	90	40	90	95
Ajit	60	40	60	75	75	85
Ramesh	100	60	85	85	55	80
Sonu	50	90	75	50	70	75
Gaurav	80	70	90	60	80	90

27. The marks obtained by Vinay in Computer is approximately how much percentage more or less than that obtained by Arun in Science?
(a) 4.5%   (b) 7.4%   (c) 5.4%   (d) 7%

Directions (28-30): A cosmetic company produces 5 different products. The sales of these five products (in lakh number of packs) during 1995 and 2000 are shown in the following bar graph. Answer following questions based on bar graph.

Sales (in lakh number of packs) of 5 products

28. The sales of lipsticks in 2000 was by what percent approximately more than the sales of nail enamels in 2000?

(a) 24%   (b) 28%   (c) 32%   (d) 36%

Sales (in lakh number of packs) of 5 products

29. The sales of conditioners in 1995 was by what percent approximately less than the sales of shampoos in 1995?
(a) 4%　　　　　　　　(b) 28%　　　(c) 3%　　　　　　　(d) 36%

Sales (in lakh number of packs) of 5 products
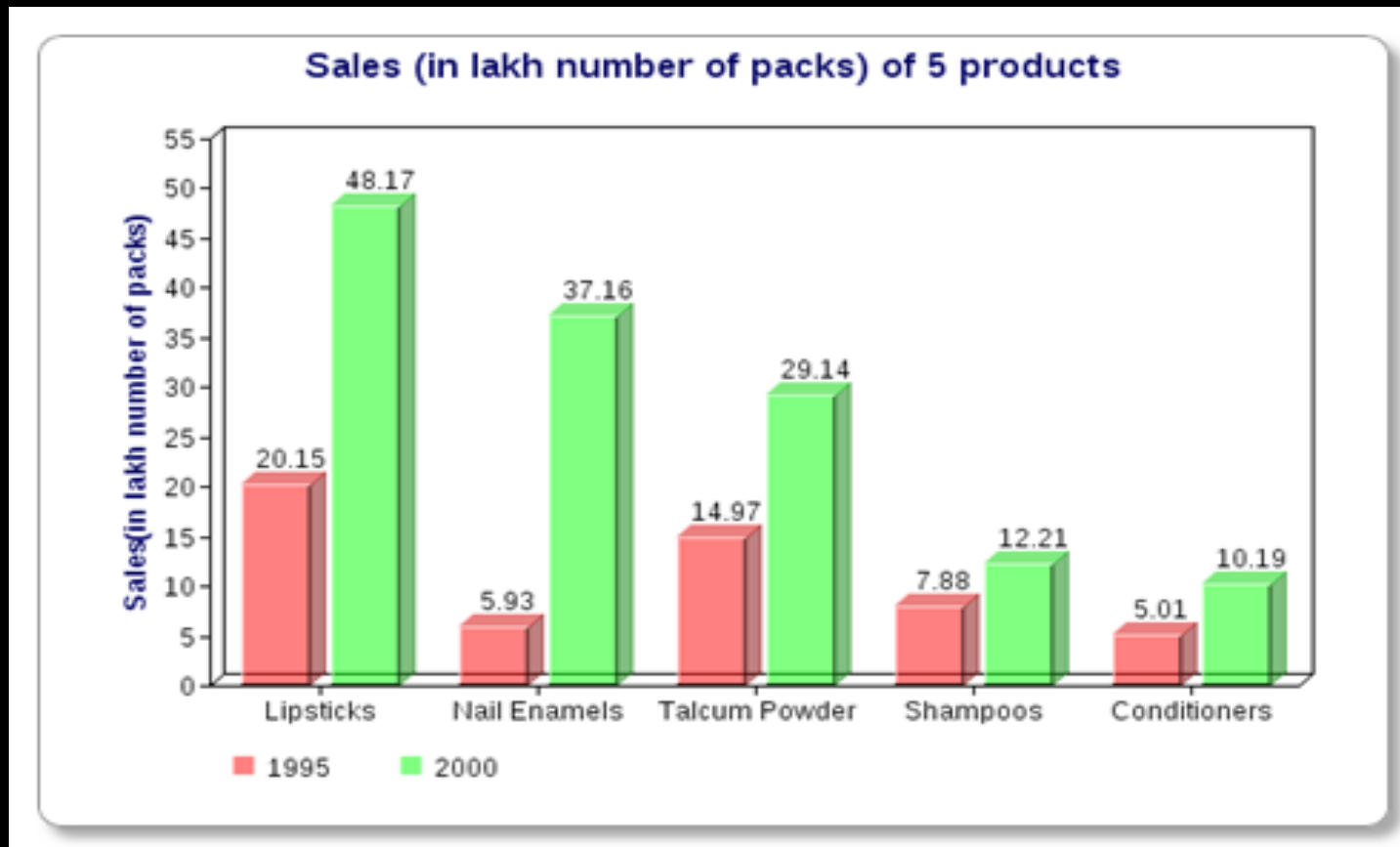
30. What is the approximate ratio of the sales of nail enamels in 2000 to the sales of Talcum powder in 1995?

(a) 5:2   (b) 3:7   (c) 7:3   (d) 9:11

Directions (31-35): Percentage of the candidates en-rolled in seven different schools for the C.B.S.E 10th examination and candidates who passed the examination is given by following pie-graph.

Candidates enrolled - 8550

A, 22%
B, 15%
C, 10%
D, 17%
E, 8%
F, 12%
G, 16%

Candidates passed - 5700

A, 18%
B, 17%
C, 13%
D, 16%
E, 9%
F, 15%
G, 12%
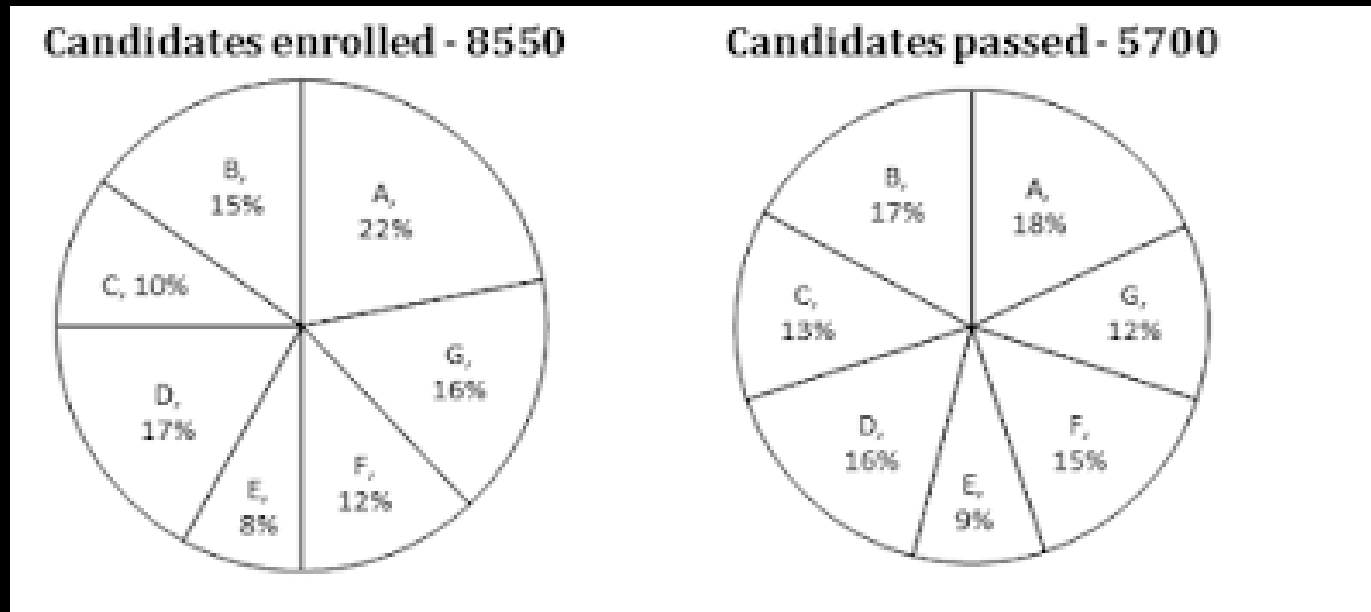
31. What is the ratio of candidates passed to the candidates enrolled from the school A?

(a) 6 : 11   (b) 11 : 6   (c) 6 : 7   (d) 7 : 6

Candidates enrolled - 8550

A, 22%
B, 15%
C, 10%
D, 17%
E, 8%
F, 12%
G, 16%

Candidates passed - 5700

A, 18%
B, 17%
C, 13%
D, 16%
E, 9%
F, 15%
G, 12%
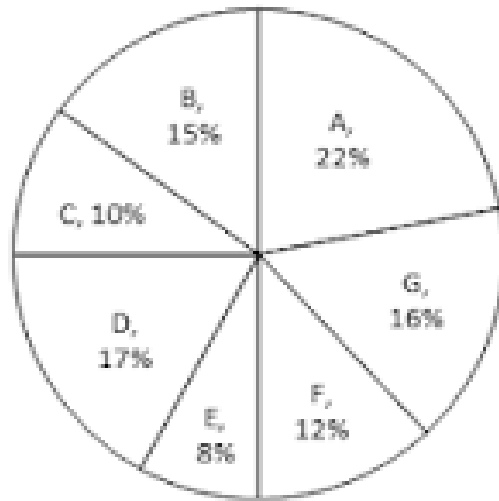
32. What percentage of candidates passed to the candidates enrolled for the schools B and C together?

(a) 60   (b) 72   (c) 76   (d) 80
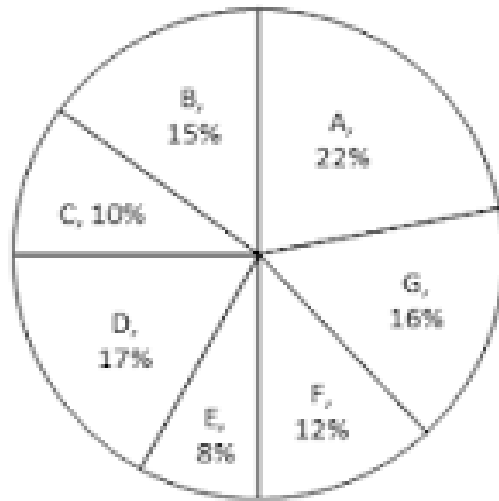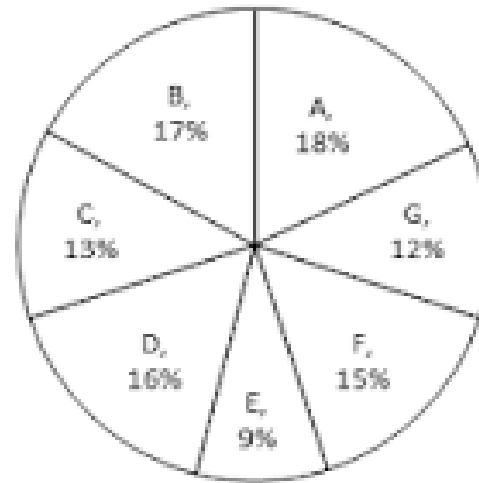
Candidates enrolled - 8550

A, 22%
B, 15%
C, 10%
D, 17%
E, 8%
F, 12%
G, 16%

Candidates passed - 5700

A, 18%
B, 17%
C, 13%
D, 16%
E, 9%
F, 15%
G, 12%
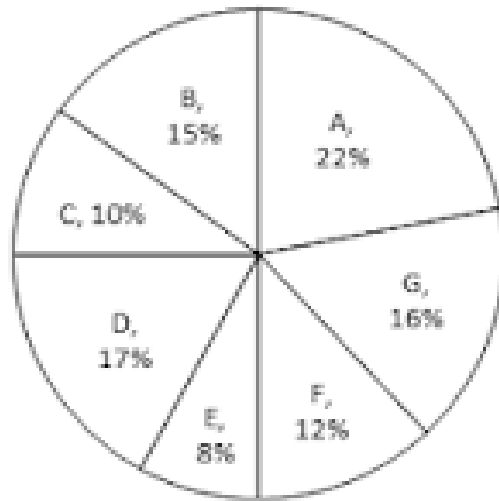
33. Which school has the highest percentage of the candidates passed to the candidates enrolled?

(a) B (b) C (c) E (d) F

Candidates enrolled - 8550   Candidates passed - 5700

34. The number of candidates passed from the schools D and A together exceeds the number of candidates enrolled from the schools E and C together?
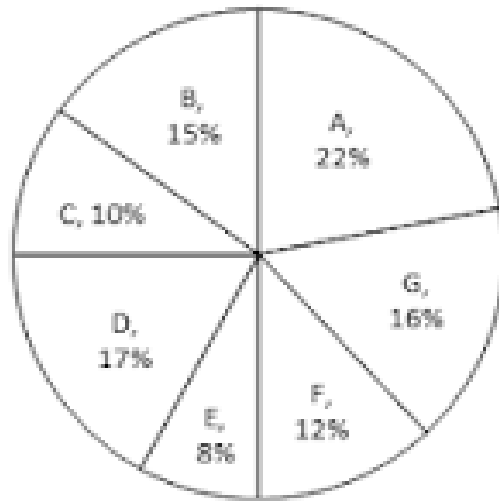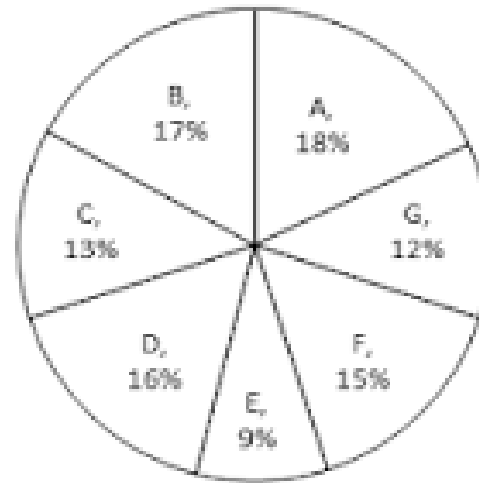(a) 299　　　　　　　　(b) 379　　　　　　　　(c) 399　　　　　　　　(d) 439

Candidates enrolled - 8550

A, 22%
B, 15%
C, 10%
D, 17%
E, 8%
F, 12%
G, 16%

Candidates passed - 5700

A, 18%
B, 17%
C, 13%
D, 16%
E, 9%
F, 15%
G, 12%

35. What percentage of candidates passed in the examination from school E out of total number of candidates enrolled from the same school?
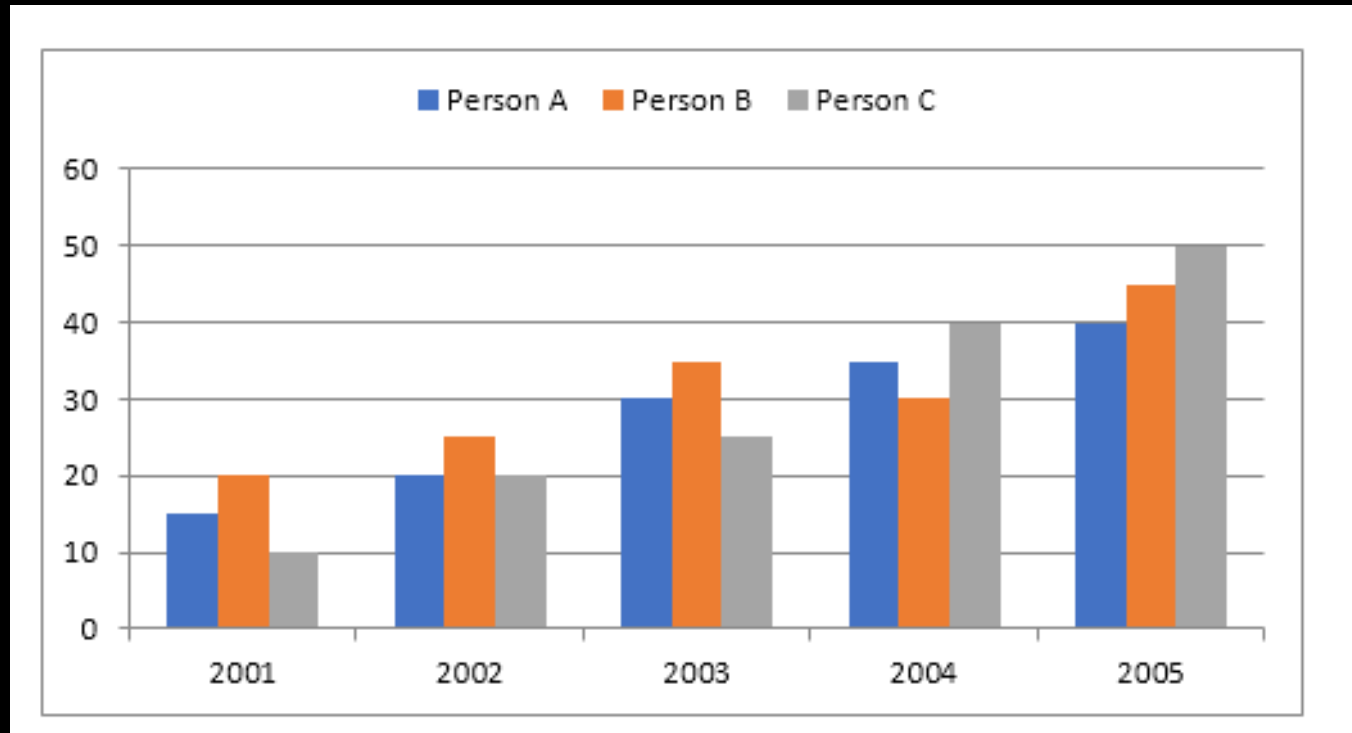
(a) 60   (b) 75   (c) 65   (d) 80

Directions (36-40): Study the following graph carefully to answer the questions that follows:
Monthly income (Rs in thousands) of three different persons in five different years
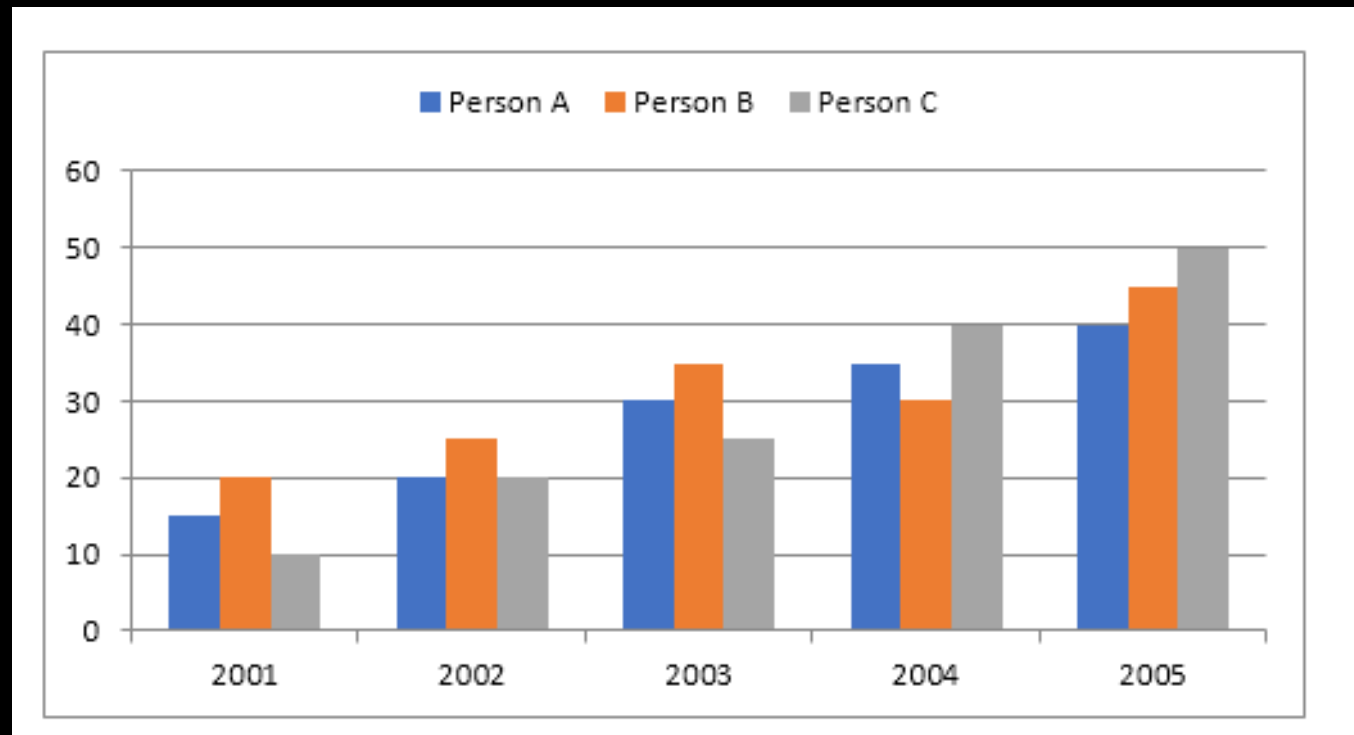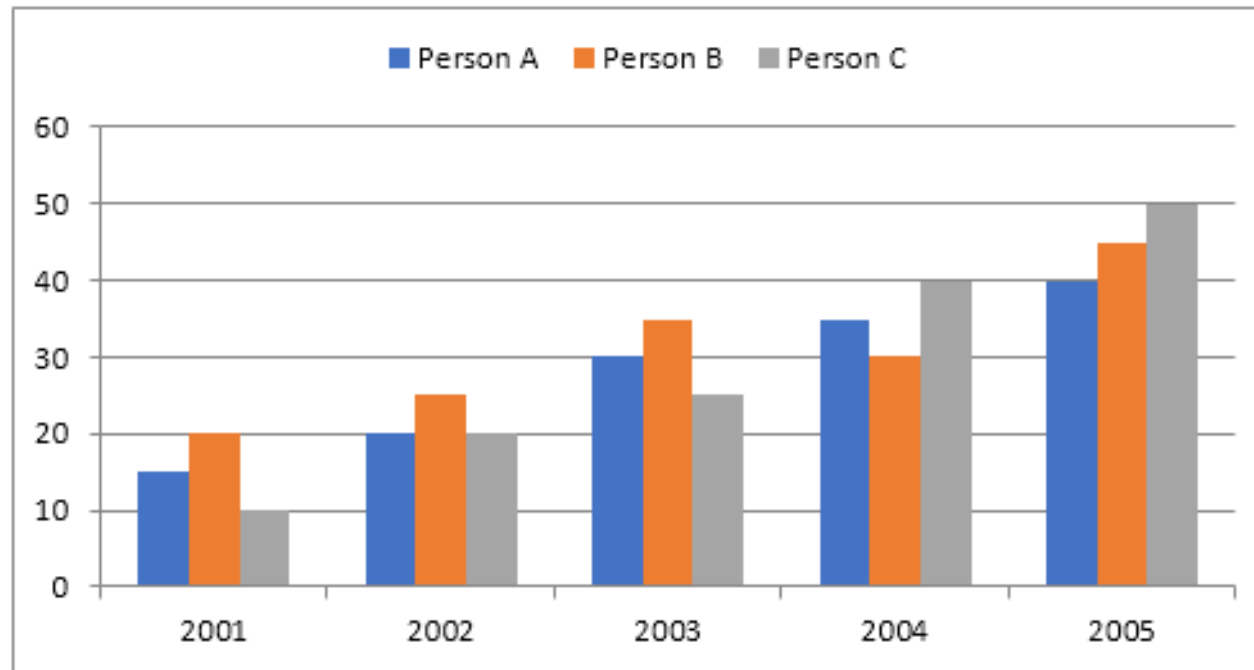

36. Find the average monthly income of person B over all the years.
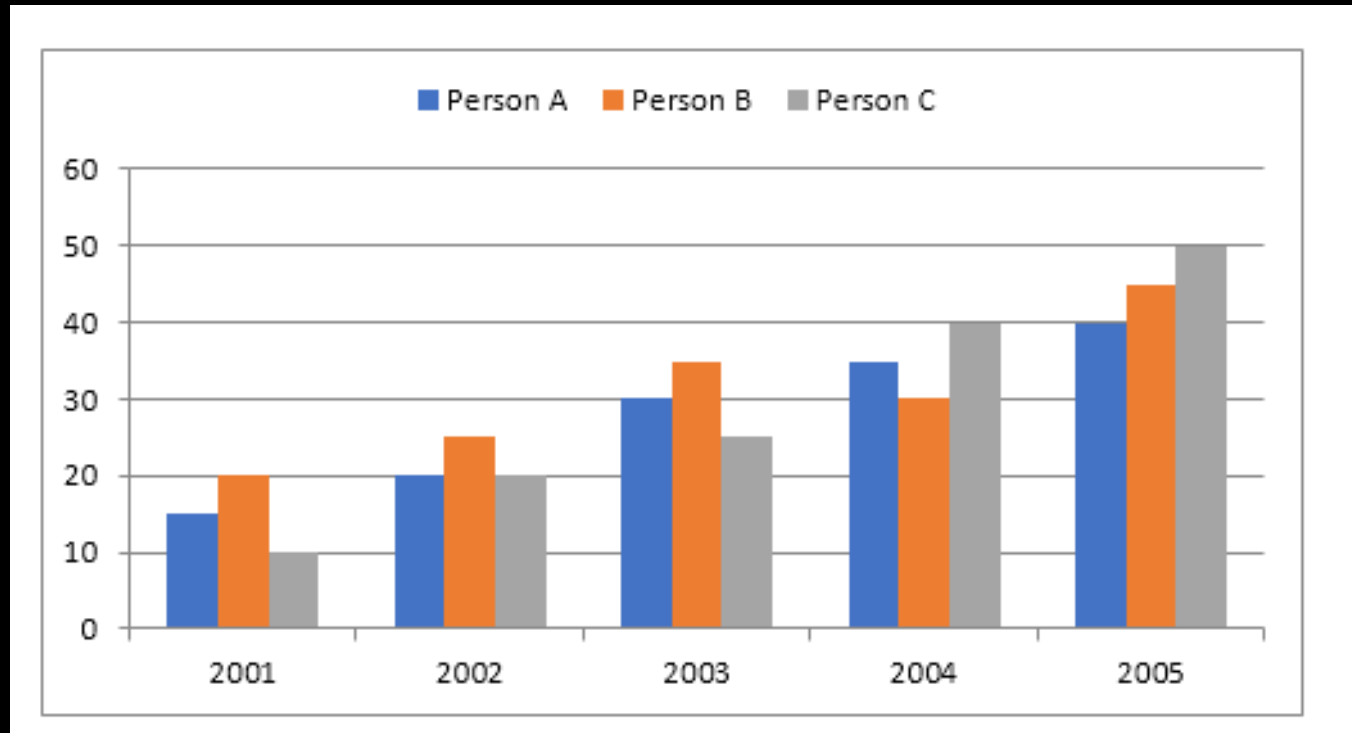(a) 26000   (b) 31000   (c) 35000   (d) 22000

37. What is the difference between total monthly income of person A and that of person C over all the years?
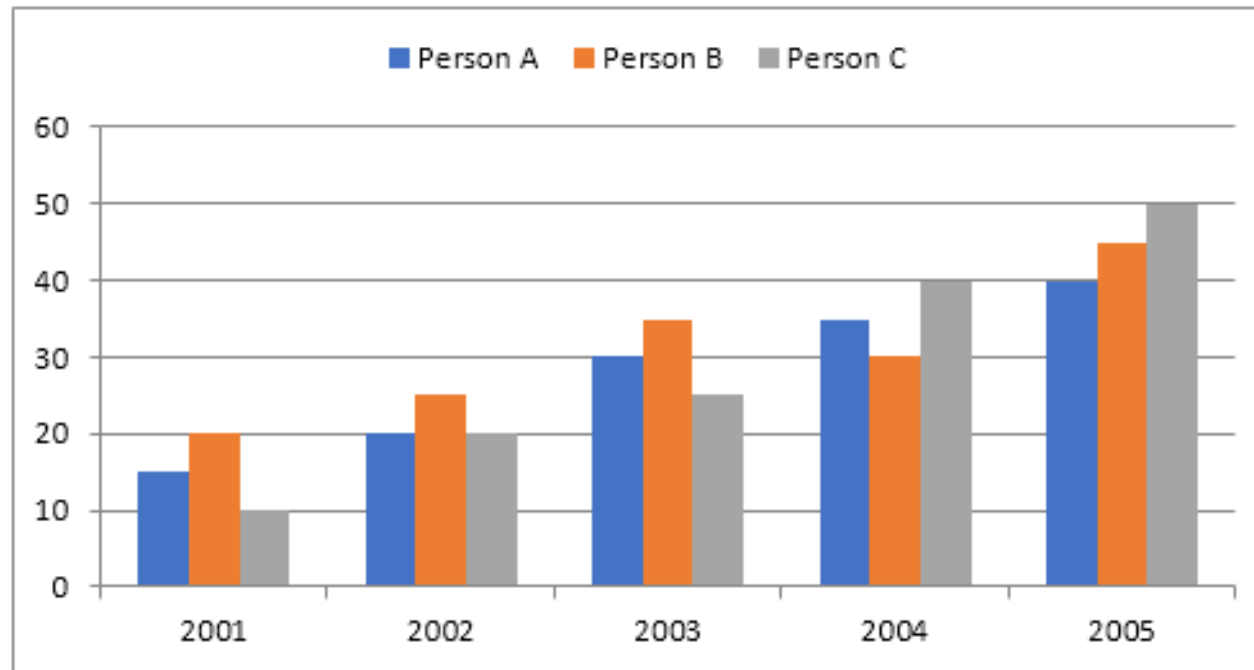
(a) 8000   (b) 10000   (c) 5000   (d) 4000

38. The monthly income of person A is what percent (approx) more or less than the monthly income of B in the year 2003?
(a) 14 % more   (b) 20 % less   (c) 14 % less   (d) 20 % more

39. Find the ratio of total monthly income of A in the years 2002 and 2004 together to the total monthly income of C in the years 2001 and 2003 together.
(a) 13 : 6   (b) 4 : 9   (c) 7 : 11   (d) 11 : 7
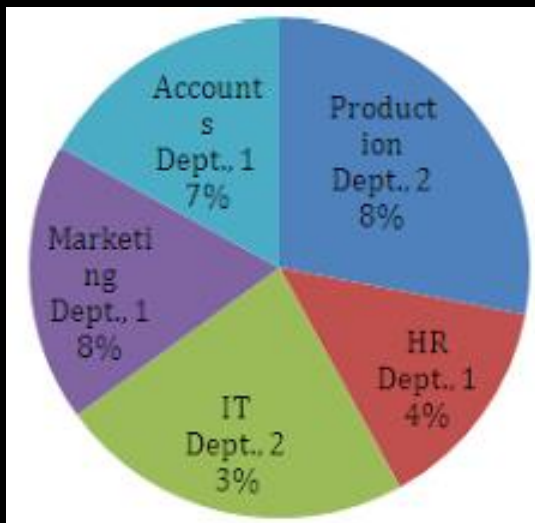
40. In which year the person B get maximum income?
(a) 2005   (b) 2004   (c) 2002   (d) 2003

Directions (Q. 41-45): Study the following pie chart and table carefully to answer the following questions that follow:

Percentage breaks up of employees working in various departments of an organisation and the ratio of men to women in them.
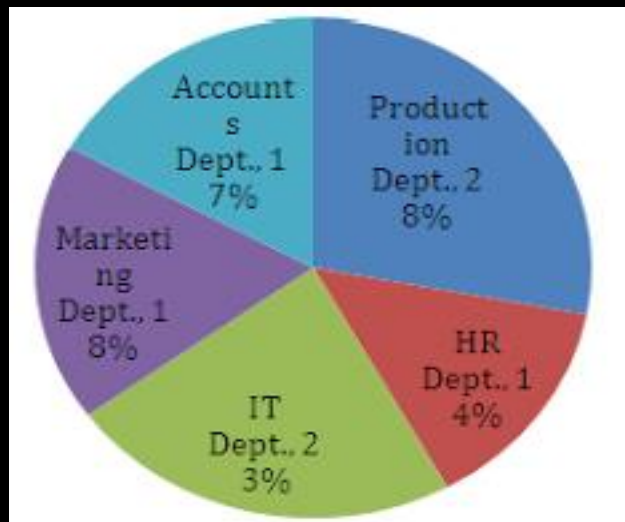
Total Number of Employees = 1800

Ratio of Men to Women		
Department	Men	Women
Production	11	1
HR	1	3
IT	5	4
Marketing	7	5
Accounts	2	7

Pie chart labels: Accounts Dept., 1 7%, Production Dept., 2 8%, HR Dept., 1 4%, IT Dept., 2 3%, Marketing Dept., 1 8%

41. What is the number of men working in the marketing department?
(A) 132 (B) 174 (C) 126 (D) 189

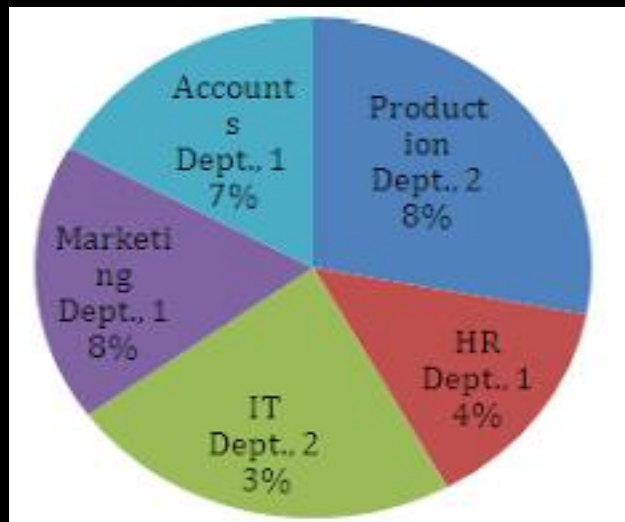| Ratio of Men to Women		
Department	Men	Women
Production	11	1
HR	1	3
IT	5	4
Marketing	7	5
Accounts	2	7

42.   The number of women working in the IT department of the organisation forms approximately what per cent of the total number of employees in the organisations from all departments together?

(A) 7   (B) 5   (C) 15   (D) 10

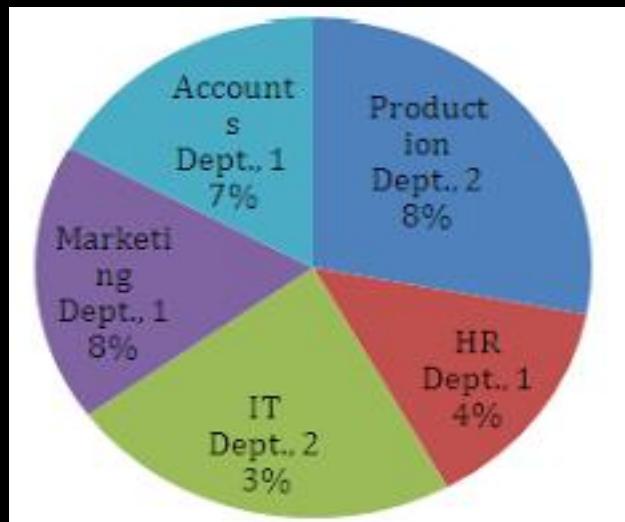| Ratio of Men to Women		
Department	Men	Women
Production	11	1
HR	1	3
IT	5	4
Marketing	7	5
Accounts	2	7

43. What is the respective ratio of the number of women working in the HR department of the organisation and the total number of employees in that department?

(A) 3:4   (B) 2:5   (C) 2:9   (D) 3:7

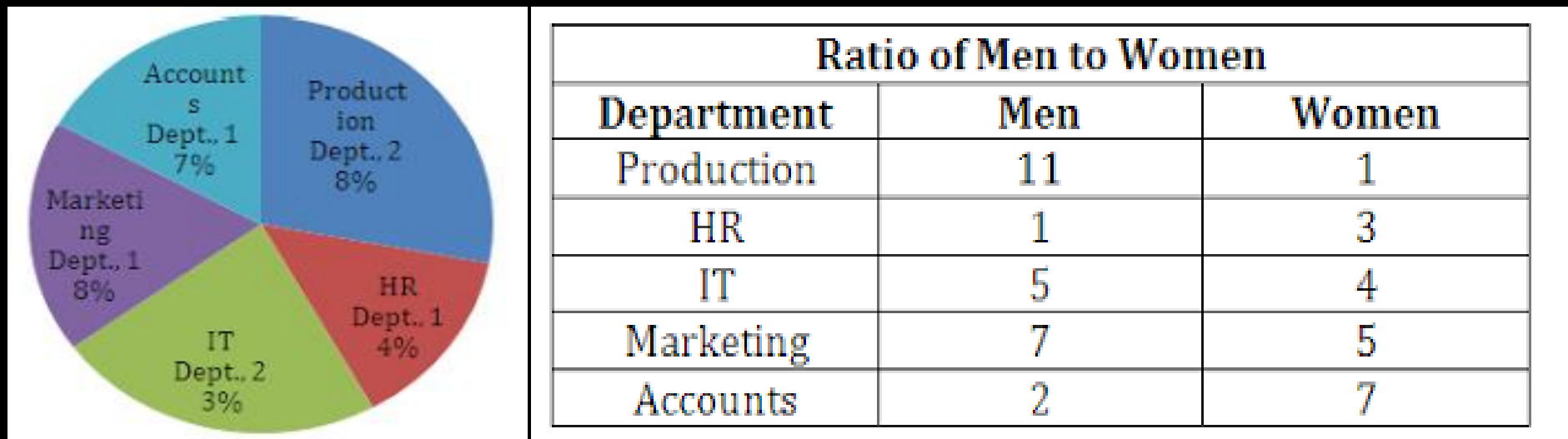| Ratio of Men to Women		
Department	Men	Women
Production	11	1
HR	1	3
IT	5	4
Marketing	7	5
Accounts	2	7

44. What is the respective ratio of the number of men working in the Accounts departments to the total number of employees working in those departments?

(A) 9:2   (B) 7:6   (C) 2:9   (D) 6:7

Ratio of Men to Women		
Department	Men	Women
Production	11	1
HR	1	3
IT	5	4
Marketing	7	5
Accounts	2	7

45. The number of men working in the production department of the organisation forms what per cent of the total number of employees working in that department?
(A)89.76   (B)91.67   C)88.56   D) 94.29

Directions (46-50): Study the following table carefully to answer the questions that follow–

Company / year	Per cent profit earned by six companies over the years					
	P	Q	R	S	T	U
2004	11	12	3	7	10	6
2005	9	10	5	8	12	6
2006	4	5	7	13	12	5
2007	7	6	8	14	14	7
2008	12	8	9	15	13	5
2009	14	12	11	15	14	8

46. If the profit earned by Company R in the year 2008 was Rs. 18.9 lakhs, what was the income in that year?
 (a) Rs. 303.7   (b) Rs. 264.5   (c) Rs. 329.4   (d) Rs. 228.9

year	Company	Per cent profit earned by six companies over the years					
		P	Q	R	S	T	U
2004		11	12	3	7	10	6
2005		9	10	5	8	12	6
2006		4	5	7	13	12	5
2007		7	6	8	14	14	7
2008		12	8	9	15	13	5
2009		14	12	11	15	14	8

47. What is the percentage rise in profit of Company T in the year 2009 from the year 2004?
(a) 40   (b) 35   (c) 26   (d) 48

year	Company Per cent profit earned by six companies over the years					
	P	Q	R	S	T	U
2004	11	12	3	7	10	6
2005	9	10	5	8	12	6
2006	4	5	7	13	12	5
2007	7	6	8	14	14	7
2008	12	8	9	15	13	5
2009	14	12	11	15	14	8

48. If the profit earned by Company P in the year 2007 was Rs. 2.1 lakhs, what was the expenditure in that year (In lakhs) ?

(a) Rs. 30   (b) Rs. 15   (c) Rs. 23   (d) Rs. 27

year	Company	Per cent profit earned by six companies over the years					
		P	Q	R	S	T	U
2004		11	12	3	7	10	6
2005		9	10	5	8	12	6
2006		4	5	7	13	12	5
2007		7	6	8	14	14	7
2008		12	8	9	15	13	5
2009		14	12	11	15	14	8

49. What was the average per cent profit of Company S over all the years together?
(a) 13.5   (b) 11   (c) 12   (d) 14

Company / year	Per cent profit earned by six companies over the years					
	P	Q	R	S	T	U
2004	11	12	3	7	10	6
2005	9	10	5	8	12	6
2006	4	5	7	13	12	5
2007	7	6	8	14	14	7
2008	12	8	9	15	13	5
2009	14	12	11	15	14	8

50. What is the difference between the per cent profit earned by Company Q in the year 2005 and the average per cent profit earned by the remaining Companies together in that year?
(a) 4   (b) 2   (c) 1   (d) 3

Answer Key:

1	B	11	C	21	B	31	A	41	D
2	C	12	C	22	A	32	D	42	D
3	C	13	A	23	D	33	B	43	A
4	C	14	D	24	A	34	C	44	C
5	B	15	C	25	C	35	B	45	B
6	A	16	C	26	A	36	B	46	D
7	C	17	D	27	B	37	C	47	A
8	C	18	B	28	B	38	C	48	A
9	B	19	A	29	D	39	D	49	C
10	A	20	C	30	A	40	A	50	B