

PLK BRILLIANTS

INSTRUCTIONS TO EASILY GET 5 MARKS IN SPECIAL GRAPH QUESTIONS IN CLASS 10TH MATHS GRAPH

KEY WORD FOR EASY TO REMEMBER DIRECT VARIATION PROBLEMS:

Varshika goes to the cloth shop in $\frac{1}{2}$ an hour by bus or two wheeler.

Solution methods for direct variation problems:

S.No	Question number in our book	Table	Scale	Answers to the questions asked at the end of the questions.												
1	Example 3.47	<table border="1"> <tr> <td>Diameter (x) cm</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>Perimeter (y) cm</td> <td>3.1</td> <td>6.2</td> <td>9.3</td> <td>12.4</td> <td>15.5</td> </tr> </table>	Diameter (x) cm	1	2	3	4	5	Perimeter (y) cm	3.1	6.2	9.3	12.4	15.5	X axis 1 cm = 1 unit Y axis 1 cm = 1 unit	If x = 6 then y = 1
Diameter (x) cm	1	2	3	4	5											
Perimeter (y) cm	3.1	6.2	9.3	12.4	15.5											
2	Exercise 3.15 - (1)	<table border="1"> <tr> <td>Marked price (x)</td> <td>1000</td> <td>2000</td> <td>3000</td> <td>4000</td> <td>5000</td> </tr> <tr> <td>Discount (y)</td> <td>500</td> <td>1000</td> <td>1500</td> <td>2000</td> <td>2500</td> </tr> </table>	Marked price (x)	1000	2000	3000	4000	5000	Discount (y)	500	1000	1500	2000	2500	In X axis 1 cm = Rs.1000 In y axis 1 cm = Rs.500	If y = 3250 then x = 6500 If x = 2500 then y = 1250
Marked price (x)	1000	2000	3000	4000	5000											
Discount (y)	500	1000	1500	2000	2500											
3	Exercise 3.15 - (3)	<table border="1"> <tr> <td>x</td> <td>2</td> <td>4</td> <td>6</td> <td>8</td> <td>10</td> </tr> <tr> <td>y</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table>	x	2	4	6	8	10	y	1	2	3	4	5	In X-axis 1 cm = 2 units In Y-axis 1 cm = 1 unit	If x = 9 then y = 4.5 If y = 7.5 then x = 15
x	2	4	6	8	10											
y	1	2	3	4	5											
4	Example 3.48	<table border="1"> <tr> <td>Time taken x (hours)</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>Distance y (kms)</td> <td>50</td> <td>100</td> <td>150</td> <td>200</td> <td>250</td> </tr> </table>	Time taken x (hours)	1	2	3	4	5	Distance y (kms)	50	100	150	200	250	In X-axis 1 cm = 1 hr. In Y-axis 1 cm = 50 kms	If x = $1\frac{1}{2}$ then y = 75 If y = 300 then x = 6 Constant of variation $k = \frac{50}{1} = \frac{100}{2} = 50$
Time taken x (hours)	1	2	3	4	5											
Distance y (kms)	50	100	150	200	250											
5	Exercise 3.15 - (6)	<table border="1"> <tr> <td>Time in hours (x)</td> <td>4</td> <td>8</td> <td>12</td> <td>24</td> </tr> <tr> <td>Amount Rs. (y)</td> <td>60</td> <td>120</td> <td>180</td> <td>360</td> </tr> </table>	Time in hours (x)	4	8	12	24	Amount Rs. (y)	60	120	180	360	In X-axis 1 cm = 4 hrs. In Y-axis 1 cm = Rs.60	If x = 6 then y = 90 If y = 150 then x = 10		
Time in hours (x)	4	8	12	24												
Amount Rs. (y)	60	120	180	360												

P.LAKSHMIKANDAN, BT ASST (MATHS), NSSB CORPORATION HSS, PALANGANATHAM, MADURAI

Kindly Send Me Your Key Answer to Our email id - Padasalai.net@gmail.com

PLK BRILLIANTS

KEY WORD FOR EASY TO REMEMBER DIRECT VARIATION PROBLEMS:

Nishant scored 24 in school and went to work for a pipe company.

Solution methods for Indirect variation problems:

S.No	Question number in our book	Table	Scale	Answers to the questions asked at the end of the questions.														
6	Example 3.50	<table border="1"> <tr> <td>Speed x (km/hr)</td> <td>12</td> <td>6</td> <td>4</td> <td>3</td> <td>2</td> </tr> <tr> <td>Time y (hrs)</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>6</td> </tr> </table>	Speed x (km/hr)	12	6	4	3	2	Time y (hrs)	1	2	3	4	6	<p>In X-axis 1 cm = 1 km In Y-axis 1 cm = 1hr</p>	If x = 2.4 then y = 5		
Speed x (km/hr)	12	6	4	3	2													
Time y (hrs)	1	2	3	4	6													
8	Exercise 3.15 - (2)	<table border="1"> <tr> <td>x</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>6</td> <td>8</td> </tr> <tr> <td>y</td> <td>24</td> <td>12</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> </tr> </table>	x	1	2	3	4	6	8	y	24	12	8	6	4	3	<p>In X-axis 1 cm = 1 unit In Y-axis 1 cm = 2 units</p>	<p>If x = 3 then y = 8 If y = 6 then x = 4</p>
x	1	2	3	4	6	8												
y	24	12	8	6	4	3												
7	Exercise 3.15 - (5)	<table border="1"> <tr> <td>No. Of participants (x)</td> <td>2</td> <td>4</td> <td>6</td> <td>8</td> <td>10</td> </tr> <tr> <td>Amount for each participant in Rs. (y)</td> <td>180</td> <td>90</td> <td>60</td> <td>45</td> <td>36</td> </tr> </table>	No. Of participants (x)	2	4	6	8	10	Amount for each participant in Rs. (y)	180	90	60	45	36	<p>In X-axis 1 cm = 2 members In Y-axis 1 cm = Rs.10</p>	<p>Constant of variation k = $xy = 2 \times 180 = 360$ If x = 12 then y = 30</p>		
No. Of participants (x)	2	4	6	8	10													
Amount for each participant in Rs. (y)	180	90	60	45	36													
9	Exercise 3.15 - (4)	<table border="1"> <tr> <td>No. Of pipes (x)</td> <td>2</td> <td>3</td> <td>6</td> <td>9</td> </tr> <tr> <td>Time taken (min) y</td> <td>45</td> <td>30</td> <td>15</td> <td>10</td> </tr> </table>	No. Of pipes (x)	2	3	6	9	Time taken (min) y	45	30	15	10	<p>In X-axis 1 cm = 1 pipe In Y-axis 1 cm = 10 min.</p>	<p>If x = 5 then y = 18 If y = 9 then x = 10</p>				
No. Of pipes (x)	2	3	6	9														
Time taken (min) y	45	30	15	10														
10	Example 3.49	<table border="1"> <tr> <td>No. Of workers (x)</td> <td>40</td> <td>50</td> <td>60</td> <td>75</td> </tr> <tr> <td>Number of days (y)</td> <td>150</td> <td>120</td> <td>100</td> <td>80</td> </tr> </table>	No. Of workers (x)	40	50	60	75	Number of days (y)	150	120	100	80	<p>In X-axis 1 cm = 10 workers In Y-axis 1 cm = 10 days</p>	<p>As x increases, y decreases, thus inverse variation. If x = 120 then y = 50 If y = 200 then x = 30</p>				
No. Of workers (x)	40	50	60	75														
Number of days (y)	150	120	100	80														