

Dimensions Mathematics Core Edition 8B Workbook Solutions

						11/17/2014
Page	Ch.					Updated (mm/dd/yyyy)
3	8	6	(h)	Solution	The equation on the graph should be $y = -2x^2 + 4x + 11$	
5		14		Question	The points $A(-3, -1)$, $B(3, 11)$, $C(0, m)$...	
		14	(b)	Solution	Using points A and B , ... Method 1 5 th line: $2n = -5$	
8		23			The altitude y meters of a ...	
		23	(b)	Solution	The equation on the graph should be $y = t^2 - 7t + 11$ The y-axis should be labeled Altitude (m)	
9		25		Question	The profit (in thousands of dollars) of a company ... where x (in thousands of dollars) ...	
10		26	(a)	Solution	The equation on the graph should be $V = -30t + 200$	
		27		Question	The equations of two linear functions...	
	9	1		Question	The following table shows the quarterly revenues and expenditures of a company...	
15		14	(c)(ii)	Solution	mass of gold that is worth \$9,600 = 8 troy ounces	
16		18		Question	The distance-time graph should be below the question.	
			(a)(i)		From 09:00 hour to 09:11 hours.	
18		21	(a)(i)	Solution	Volume of water in container at depth of 12 cm	
20		25		Question	The y-axis should be labeled Distance from P (miles)	
22		29		Question	Her average speed during the p minutes is $1\frac{2}{3}$ m/s.	
			(b)	Solution	7 th line: $P = \frac{80}{6} \times \frac{3}{5}$	
27	10	14	(b)(ii)	Solution	$WY^2 = WX^2 - XY^2$ $= 13.5^2 - 12.5^2$ $= 26.0$ (correct to 3 sig. fig.) $WY = \sqrt{26}$ $= 5.10$ cm (correct to 3 sig. fig.)	
			(c)	Solution	Area of $\Delta WXZ = \frac{1}{2} \times 12.5 \times (30 + \sqrt{26})$ $= 219$ cm ² (correct to 3 sig. fig.)	

30	10	23		Question	The figure is missing.	
31		24	(b)	Solution	5 th line: (1) x 2: $2p + 2q = 8$(3)	
32		25	(b)	Question	Apply the Pythagorean Theorem...	
33		28		Question	In the figure, the three circles with centers at ... BC = 8 cm ...	
				Solution	Let x cm, y cm, and z cm be the radii of the circles with centers at...	
42	11	22	(c)	Solution	2 nd to last line: = 1.15233×0.25	
44		28		Question	The figure shows an L-shaped region...	
47	12	7	(c)	Solution	Total surface area = $\pi \times 162 + \pi \times 16 \times 34$	
		8		Question	The base diameter of each cone is 14 cm ...	
50		18	(b)	Solution	4 th line: $r = 15$	
55		34	(b)	Solution	2 nd to last line: $= \sqrt[3]{\frac{3}{2}}$	
56		35	(a)	Solution	12 th line: $(\sqrt{2}y)^2 - \left(\frac{\sqrt{2}}{3}y\right)^2$	
58	13	4		Question	The table on the left and the table on the right show the responses from the...	
62		16	(b)	Solution	Investments row, Total column: 23.25	
63		18	(b)	Solution	2006 difference = $50 - 14 = 36$	
64		21	(a)	Solution	In the graph, the point representing 2005 is incorrectly placed. It should be at 371. Inconsistent use of US and U.S.	
65		22	(c)	Question	Describe the correlation between the two variables.	
			(b)	Solution	The point at (65, 1.65) is incorrectly placed. It should be at (54, 1.65). The point at (54, 1.72) is incorrectly placed. It should be at (64, 1.72).	
		23	(b)(ii)		4 th line: = 29%	
67		27		Question	Vertical label on chart: Puzzle B (x minutes)	
			(a)	Solution	Vertical label on chart: Puzzle B (x minutes)	
68			(b)	Solution	Graph for Puzzle B Frequency bar for 10-15 min should be to 13 .	
		28	(d)	Solution	So it is not possible to call when the user is away.	
		29		Question	... the total weight of fruits produced from each tree was measured.	

69			(a)	Solution	The point at (60, 12.8) is incorrectly placed. It should be at (60, 13.1). The label on the y-axis should include the units (kg). The x axis should extend to 70. The corresponding masses for 70 cm ² are missing.	
		30	(c)	Solution	The statement is true if the number of members is the same every year.	
			(d)	Solution	Change member to members in 3 places.	
70		31	(c)	Solution	...the scale of the vertical axis on Rick's...	
		32	(c)	Solution	Thus the graph gives readers the impression that the revenue in Year 3 is 4.6 times that in Year 1.	
		33	(a)	Solution	The chart is missing the point (0, 82).	
71	14	2	(d)	Solution	Last line: = -1.11 or 8.11 (correct to 3 sig. fig.)	
72			(g)	Solution	2 nd line: $x^2 + \frac{3}{4}x - \frac{3}{2} = 0$ 5 th line: $\left(x + \frac{3}{8}\right)^2 = \frac{105}{64}$	
76		11	(f)	Solution	5 th and 6 th lines: $\left(x + \frac{7}{4}\right)^2 - \left(\frac{7}{4}\right)^2 = 3$ $\left(x + \frac{7}{4}\right)^2 = \frac{97}{16}$	
			(g)	Solution	5 th and 6 th lines: $\left(x + \frac{23}{6}\right)^2 - \left(\frac{23}{6}\right)^2 = -\frac{25}{3}$ $\left(x + \frac{23}{6}\right)^2 = \frac{229}{36}$	
79		15	(b)	Solution	Last line: = -0.823 or 1.82 (correct to 3 sig. fig.)	
80		17	(b)(i)	Solution	Last line: = 12,942 cm ³ (correct to 3 sig. fig.)	
81		19	(a)(ii)	Solution	Area of unshaded region = area of <i>EBCH</i> + Area of <i>GFH</i>	
82		23	(c)	Solution	2 nd line: = $\frac{-16 \pm \sqrt{576}}{32}$	
83		26	(b)	Question	Leave your answer with square root signs .	