

Dimensions Mathematics Core Edition 7B Workbook Solutions
(Updated 7/15/2014)

Page	Ch.					Printing
iii					Chapter 13 Volumes And Surface Areas of Solids	2012
2	9	3	(b)	Solution	3, 5, 9, 15, 23	
			(e)	Solution	7th term = 720×7	
			(h)	Solution	<p>Fractions under arrows are incorrect, because, for example, $1/2 + 2/3$ does not equal $3/5$, as is implied. Instead, there should be separate arrows indicating that the numerators are +2, +5, +13 and the denominators +3, +8 and +21. There should be more explanation, that is, that the denominator is added to the numerator to get the next numerator, which is then added to the denominator to get the next denominator. This is a complex pattern compared to the others.</p> <p>5th term: $\frac{21+34}{21+34+34} = \frac{55}{89}$</p> <p>6th term: $\frac{55+89}{55+89+89} = \frac{144}{233}$</p>	
9		25	(b)	Solution	\therefore the sum is a multiple of 4.	
16	10	22		Solution	Fix indentation of (b) – (e)	
		23	(d)(ii)	Solution	2.5 miles	
19	11	3	(b)(v)	Solution	$2x < 8$ $x < 4$	
22		15	(h)	Solution	$\frac{1}{12}x \leq -\frac{2}{3}$ $(12)\frac{1}{12}x \leq -\frac{2}{3}(12)$ $x \leq -8$	
23		20	(h)	Question	$\frac{x-4}{5} - \frac{9+4x}{3} \geq \frac{x}{8} - \frac{5-3x}{3}$	
24		20	(g)	Solution	Second line: $\frac{5(x+4)+2(2x-5)}{10} \geq \frac{4x-(3x-8)}{4}$	
25		24	(b)(ii)	Question	...his salary is maximized and...	
26		30	(a)	Question	...cost of $2x$ cherry pies and...	
27		34			Add periods to Regent Pte. Ltd. to be consistent with the use of periods in the problem.	
34	12	22		Question	... and the lengths of AE and AB are 0.9 m and 5.5 m respectively.	
37					Chapter 13 Volumes and Surface Areas of Solids	
42	13	19	(b)	Solution	Total surface area = $2(12 + 24 - 4.5) + (5 + 3 + 1.5 + 1.5 + 3 + 1.5 + 3.5 + 3 + 5) \times 6 = 225 \text{ cm}^2$	

			(d)	Solution	Purchasing cost = $\$225 \times 0.1 = \22.50	
45	13	27	(c)	Solution	The solid formed may be R or T as shown. T is not shown. It should be 6 blocks lined up in a straight line.	
51	14	22		Solution	Land area cleared after 20 weeks = $20r \text{ cm}^2$	
52	14	25	(a)(iii)	Solution	Third line of solution should be: $= \frac{k}{\frac{1}{8}q^3}$	
54	15	4	(b)(ii)	Solution	From (a) ii, mean of 8, 6, 10, 21, 22, 4 is 12.	
		5	(a)	Question	Find the mean and the mean absolute deviation (MAD) of the heights of	
55		7	(b)	Solution	Mean = $\frac{166 + 173 + 179 + \dots + 252}{16}$	
57		20		Question	The number of books read by a group of students during the summer break is tabulated below.	
58		21	(c) (i)	Solution	Mean for brand A =	
		22		Question	Whenever Jerome or Shernice is late for an appointment with a friend, each of them will send the short message "late for 10 minutes" to the friend. The actual times to the nearest minute that they were late during 6 such occasions are listed in the following table.	
59		24		Question	First row of table: Number on cards	
		25		Question	The number of questions that are correctly answered by each student in a class in an 8-question quiz...	
60		27		Question	Mr. Scott ...	
		28		Solution	Second to last line: $[(5) - (9)] + 2 : d = 6$	
61	16	1	(e)	Solution	...Costa Rica, El Salvador, Guatemala...	
63		16	(b)	Solution	$\frac{\text{Area of } \triangle BEF}{\text{Area of } ABCD} = \frac{\frac{1}{2} \times BE \times BF}{AB \times BC}$	
66		31	(d)	Solution	Total number of dogs =	
70	17	6		Question	A bag contains an equal number of yellow marbles, blue marbles, and red marbles.	
71		6	(b)	Solution	Change colour to color and colours to colors.	
72		8	(b)(ii)	Solution	= $1 - P$ (selecting two cookies of the same flavor)	
75		19		Question	...of the punctured tire. If each recruit randomly selects a tire	
76		21		Solution	= $\frac{169}{400}$	