

Worksheet Solutions 1

TI-30XB MultiView™: Proportional Reasoning

WS1

Heidi's thinking:

		x 10		÷ 2		x 3		+ 1	
Packages	1	→	10	→	5	→	15	→	16
Charms	35		350		175		525		560

Times 35 charms to get 350. Halve 350 to get 175. Add 350 and 175 to get 525. Add on one lot of 35 to get 560 charms in 16 packages.

Chloe's thinking:

		x 2		x 2		x 2		x 2	
Packages	1	→	2	→	4	→	8	→	16
Charms	35		70		140		280		560

Double 35 charms to get 70. Double again to get 140 charms. Double 140 to get 280 charms. Double one more time to get 560 charms in 16 packages. I recognised that I can get 16 from 2 by doubling several times.

Worksheet Solutions 2

TI-30XB MultiView™: Proportional Reasoning

WS2

1.

		÷ 2		x 10		+ 1	
Bananas	2	→	1	→	10	→	11
Cost	\$3		\$1.50		\$15		\$16.50

Halve the cost to get the price of one banana which is \$1.50. Times by 10 gives me a cost of \$15. Add on one more banana gives me a cost of \$16.50.

2.

		x 3		x 2		+ 1	
Cartons	1	→	3	→	6	→	7
Cans	16		48		96		112
Tennis Balls	64		192		384		448

Triple the number of cartons to give 3 cartons containing 48 cans with 64 balls. Then double the number of cartons to give 6 cartons containing 96 balls with 384 balls. Add one more carton to bring it up to 7 cartons containing 112 cans with 448 balls.

I chose to triple the number of cartons first rather than doubling, because it made it easier to triple using smaller numbers rather than later on.

3.

		x 10		x 10		+ 1	
Bottles	3	→	1	→	30	→	31
Cost	\$5.70		\$1.90		\$57		\$62.70

Divide 3 bottles by 3 to find the cost for one bottle, which is \$1.90. Times the original price of \$5.70 by 10 to get the cost of 30 bottles. Then add on the cost of one more bottle to find a cost of \$62.70 for 31 bottles.

4.

		x 10		x 2		÷ 2	
Cartons	1	→	10	→	20	→	22
Cans	18		180		360		396

One carton has 18 cans. Times by 10 to give 180 cans. Double this to get to 360 cans. Add on two more cartons brings the number of cans up to 396.

Assessment Task Solutions

TI-30XB MultiView™: Proportional Reasoning

ATS

1.

		x 10		x 2		x 3		x 10 x 2 + 3	
Cartons	1	→	10	→	20	→	3	→	23
Cans	35		350		700		105		715

Times 10 cartons to get 35. Double this to get 700 cans in 20 cartons. Triple 1 carton to get 105 cans in 3 cartons. Add this to 700 cans in 20 cartons to get 715 cans in 23 cartons.

2.

		x 2		x 10		+ 2		+ 1	
Buses	1	→	2	→	10	→	12	→	13
Students	44		88		440		528		572

One bus takes 44 students. Double this to get 88 students on two buses. Times one bus by 10 to get 440 students. Add on two busloads of students to get 528. Add on one more bus to get a total of 572 students on 13 buses.

3.

		x 10		x 4		+ 1			
Cartons	1	→	10	→	40	→	41	→	
Packs	36		360		1440		1476		

One carton has 36 glucose packs. Times by 10 to get 360 packs in 10 cartons. Double this and double again to get 1440 glucose packs in 40 cartons. Add on one more carton to get 1476 glucose packs on 41 cartons.