1) a) 10 234

		2	3	8
	×		4	3
		7	1	4
	9	5	2	0
1	0	2	3	4

(238 × 3)
(238 × 40)

b) 41 172

		5	6	4
	×		7	3
	1	6	9	2
3	9	4	8	0
4	1	1	7	2

(564 × 3)
(564 × 70)

c) 29 960

		8	5	6
	×		3	5
	4	2	8	0
2	5	6	8	0
2	9	9	6	4

(856 × 5)
(856 × 30)

2) a) 34 558cm²
b) 22 230cm²
c) 73 584cm²

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1) a) *Laila has not used zero as a placeholder when multiplying 2 × 40. She has recorded the answer as 8 rather than 80.*

		5	2	2
	×		4	4
	2	0	8	8
2	0	8	8	0
2	2	9	6	8

(522 × 4)
(522 × 40)

b) **Laila has not recorded the regrouped thousands digit following 50 × 20.**

		6	5	3
	×		2	3
	1	9	5	9
1	3	0	6	0
1	5	0	1	9

c) **When Laila added the two products together to find the total, she added all the regrouped digits as well.**

		2	3	7
	×		6	2
		4	7	4
1	4	2	2	0
1	4	6	9	4

(522 × 4)
(522 × 40)

2) a) 20 536
b) 20 328
c) 208

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1)

		4	2	7
	×		3	2
		8	5	4
1	2	8	1	0
1	3	6	6	4

		6	5	3
	×		4	6
	3	9	1	8
2	6	1	2	0
3	0	0	3	8

2) *Children may first notice that B must be 5, because it's the only number that multiplies with another number (C) to make a product that also ends in a 5. C could therefore either be 3 (3 × 5 = 15) or 7 (7 × 5 = 5).*

Children may then notice that C + D = 5, so C and D must be 2 or 3. C must therefore be 3.

C = 3, so A × 3 = D. If A were 2, this would give 6, adding the regrouped 1 to make D = 7. However, in the hundreds column, A × C = 2 × 3 = 6. This does not work with the letters for the first product. Therefore, A must be 7 and D must be 2.

		7	7	5
	×		3	3
	2	3	2	5
2	3	2	5	0
2	5	5	7	5

Number	Letter
2	D
3	C
5	B
7	A