Homework/Extension
Multiply 3 Digits by 1 Digit

Developing

1. B (906), A (964), C (1,026)
2. A is incorrect because 300 x 2 = 600, not 500. The answer should be 624.
3. No, the second multiplication is incorrect because 8 x 4 = 32, not 23. The answer should be 1,912.

Expected

4. A (840), C (936), B (1,518)
5. C It is incorrect because 0 x 3 = 0, not 3. The answer should be 1,620.
6. No, the second multiplication is incorrect because the 15 (5 x 3) has been recorded wrongly in the answer. The 5 should be in the ones column in the answer and the 1 should be carried over to the tens column, to be added to the 24 (8 x 3). The answer should be 1,455.

Greater Depth

7. C (2,127), B (1,972), A (1,920) D can be any multiplication calculation that has a product which is less than 1,920.
8. A –

	8	3	4
x			7
5	8	3	8
	2	2	

B –

	7	1	8
x			8
5	7	4	4
	1	6	

9. Yes, Zara is correct as all the missing numbers are 9.

Homework/Extension
Count in Fractions

Developing

1. Top line: $\frac{9}{8}$, $\frac{10}{8}$, $\frac{12}{8}$; bottom line: 1, $1\frac{1}{8}$, $1\frac{2}{8}$, $1\frac{3}{8}$, $1\frac{4}{8}$
2. $\frac{8}{6}$ or $1\frac{2}{6}$
3. $1\frac{1}{4}$, $1\frac{2}{4}$, $1\frac{3}{4}$, 2 ; $1\frac{2}{4}$, $1\frac{3}{4}$, 2, $2\frac{1}{4}$ or $1\frac{3}{4}$, 2, $2\frac{1}{4}$, $2\frac{2}{4}$

Expected

4. Top line: $\frac{19}{10}$, $\frac{16}{10}$, $\frac{13}{10}$; bottom line: $2\frac{2}{10}$, $1\frac{9}{10}$, $1\frac{6}{10}$, $1\frac{3}{10}$, 1
5. $\frac{12}{5}$ or $2\frac{2}{5}$
6. Various answers starting with a mixed number between 1 and 2, for example:
$1\frac{1}{7}$, $1\frac{3}{7}$, $1\frac{5}{7}$, 2; $1\frac{2}{7}$, $1\frac{4}{7}$, $1\frac{6}{7}$, $2\frac{1}{7}$

Greater Depth

7. Top line: $\frac{24}{12}$, $\frac{21}{12}$, $\frac{15}{12}$; bottom line: 2, $1\frac{9}{12}$, $1\frac{6}{12}$, $1\frac{3}{12}$, 1
8. $\frac{31}{10}$ or $3\frac{1}{10}$
9. Various answers starting with a mixed number between 1 and 2, for example:
$2\frac{1}{8}$, $2\frac{7}{8}$, $3\frac{5}{8}$, $4\frac{3}{8}$; $2\frac{3}{8}$, $3\frac{1}{8}$, $3\frac{7}{8}$, $4\frac{3}{8}$

Homework/Extension
What is a Fraction?

Developing

1. A. $\frac{1}{6}$; B. $\frac{1}{9}$; C. $\frac{1}{4}$; D. $\frac{1}{3}$
2. A. 2; B. 3; C. 1
3. Cami is correct as the whole is 8 circles. 1 of them has been shaded a different colour showing $\frac{1}{8}$.

Expected

4. A. $\frac{6}{8}$; B. $\frac{8}{9}$; C. $\frac{5}{12}$; D. $\frac{7}{10}$
5. A. 3; B. 1; C. 2
6. Both are correct as the whole is 10 circles. 7 are one colour while 3 are another. The fraction could either be $\frac{3}{10}$ or $\frac{7}{10}$.

Greater Depth

7. A. $\frac{1}{4}$; B. $\frac{6}{8}$; C. $\frac{7}{11}$; D. $\frac{4}{5}$
8. A. 3; B. 2; C. 1
9. Eliza is correct if all of the shapes are the whole (12), 8 of the shapes are circles which would represent $\frac{8}{12}$.

Homework/Extension
Equivalent Fractions 1

Developing

1. A. $\frac{1}{4}$; B. $\frac{4}{8}$; C. $\frac{4}{4}$

2. A. 3; B. 4; C. 2; D. 1

3. Andrew is correct because he has halved the numerator and the denominator to find the equivalent fraction of $\frac{2}{5}$. Fay's fraction would be equivalent to $\frac{8}{10}$.

Expected

4. A. $\frac{3}{12}$; B. $\frac{3}{4}$; C. $\frac{6}{12}$

5. A. 1; B. 3; C. 2

4 is the odd one out. Various equivalent fractions, for example: $\frac{6}{8}$.

6. Alisha's fraction is equivalent to Matilda's because she has $\frac{4}{8}$. Anwar's fraction is $\frac{1}{4}$ which is not equivalent to $\frac{1}{2}$.

Greater Depth

7. A. $\frac{12}{24}$; B. $\frac{1}{8}$; C. $\frac{20}{24}$

8. A. 2; B. 3; C. 1

D is the odd one out. Various equivalent fractions, for example: $\frac{4}{5}$.

9. Timmy: $\frac{14}{21}$; Poppy: $\frac{10}{15}$; Hollie: various answers where the numerator and denominator are even numbers, for example: $\frac{4}{6}$.

Homework/Extension
Comparing Area

Developing

1. B and C
2. A and B
3. A. 2; B. 1; C. 3

Expected

4. B and C
5. A and C
6. A. 3; B. 2; C.4

Greater Depth

7. A and C
8. B and C
9. A. 3; B. 4; C. 2

Homework/Extension
Counting Squares

Developing

1. A
2. B
3. Anders is correct because his shape had an area of 12. Lyn's area is 10. Although the shape is wider, it does not mean that it has a larger area.

Expected

4. B
5. C
6. Layla is correct because her shape had an area of 23 squares before it was ripped and Harrison's shape only had an area of 22 squares. A wider shape doesn't necessarily have a larger area.

Greater Depth

7. C
8. B
9. Max is correct because his shape had an area of 10 squares before it was ripped and Helena's shape only had an area of 9 squares.

Homework/Extension
Divide 3 Digits by 1 Digit

Developing

1. Aleena has a remainder of 4, not 3, because the answer is 110 r4 (700 ÷ 7 = 100, 70 ÷ 7 = 10, 4 ÷ 7 = 0 r4).
2. 668 ÷ 6 < 559 ÷ 5 because 111 r2 < 111 r4.
3. Lee is correct because A equals 112 r1, while B and C equal 111 r2.

Expected

4. Suzy has a remainder of 8, not 0, because the answer is 102 r8 (900 ÷ 9 = 100 and 26 ÷ 9 = 2 r8).
5. 728 ÷ 6 < 736 ÷ 6 because 121 r2 < 122 r4.
6. Navdeep is correct as B is the only answer with the whole number 26. Also accept answers which recognise that C could be the odd one out as it is the only calculation with a reminder of 2, not 3.

Greater Depth

7. Nathan has a remainder of 7, which is not less than 5, because the answer is 81 r7 (540 ÷ 9 = 60, 180 ÷ 9 = 20, 16 ÷ 9 = 1 r7).
8. 597 ÷ 9 > 359 ÷ 6 because 66 r3 > 59 r5.
9. Various answers, for example: A. 730 ÷ 7 = 104 r2; B. 490 ÷ 4 = 122 r2; C. 751 ÷ 3 = 250 r1