A game for two or three players

You need: transparent counters, division cards, a gameboard for each player.

To Play:

Place the cards division problem up in the centre.

Players take turns to:

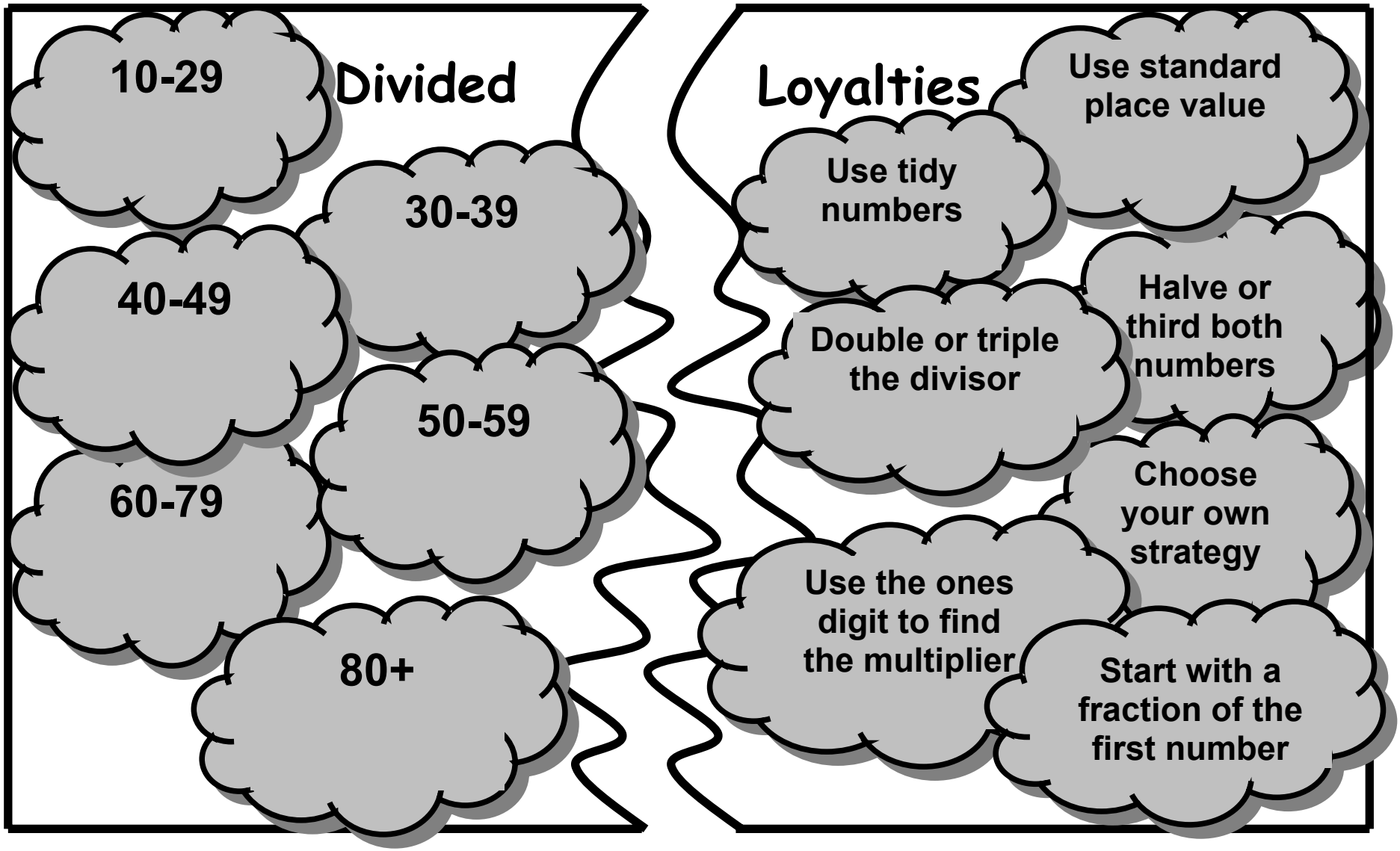
- Choose a division card.
- Use one of the strategies on the right-hand side of the gameboard to answer the question. The player must name their strategy.
- View the back of the card to check that their strategy and answer were correct.
- Place the card behind them so it cannot be used again.

After answering the question the player places one counter on the number range cloud that matches their answer, found on the left-hand side of the gameboard. He or she also places one counter on the cloud that matches their strategy found on the right-hand side of the gameboard.

If a counter is already on that strategy the player cannot place another one there until all of the strategies have been used once. They then must use each strategy once again before a third counter can be placed on a strategy cloud.
The same rule applies to the answer clouds. All of the clouds must have one counter on them before a second counter can be placed on any cloud. All of the clouds must have two counters on them before a third counter can be placed on any answer cloud.
A player who uses a combination of two strategies to solve a division problem can put a counter on both clouds. They need to explain carefully how the strategies were used.

Play continues until all of the division cards have been used.
The player who has placed the most counters is the winner.

Note that not all strategies can be applied to all cards. Players need to choose carefully. If a player incorrectly answers a question, either in providing their answer or strategy, no counters are placed.



117 ÷ 3	430 ÷ 5
344 ÷ 4	474 ÷ 6
315 ÷ 7	432 ÷ 8

(Card A

$381 \div 3$	$160 \div 5$
$112 \div 4$	$258 \div 6$
$182 \div 7$	$288 \div 8$

$396 \div 9$	$162 \div 3$
$472 \div 4$	$195 \div 5$
$204 \div 6$	$364 \div 7$

384 ÷ 8	603 ÷ 9
352 ÷ 4	275 ÷ 5
606 ÷ 6	238 ÷ 7

Card D

$312 \div 8$	$333 \div 9$
$504 \div 4$	$330 \div 5$
$354 \div 3$	$256 \div 4$

$639 \div 3$	$423 \div 9$
$192 \div 8$	$483 \div 7$
$336 \div 6$	$144 \div 9$

$201 \div 3$	$345 \div 5$
$228 \div 4$	$342 \div 6$
$189 \div 7$	$200 \div 8$

Place value: 400 ÷ 5 = 80, 430 – 400 = 30, 30 ÷ 5 = 6, 80 + 6 = 86 **Tidy numbers**: 450 ÷ 5 = 90, 90 – 4 = 86 **Double or triple divisor**: 430 ÷ 10 = 43, 43 × 2 = 86 **Fraction of first number:**	**Place value**: 90 ÷ 3 = 30, 117 – 90 = 27, 27 ÷ 3 = 9, 30 + 9 = 39 **Tidy numbers**: 120 ÷ 3 = 40, 40 – 1 = 39 **Double or triple divisor**: 117 ÷ 9 = 13, 13 × 3 = 39 **Using ones digit**: 30 × 3 = 90, so 3□ x 3 = 117, 9 x 3 = 27, □ = 9.
Place value: 420 ÷ 6 = 70, 474 - 420 = 54, 54 ÷ 6 = 9, 70 + 9 = 79 **Tidy numbers**: 480 ÷ 6 = 80, 80 – 1 = 79 **Halve and third both**: 474 ÷ 6 = 237 ÷ 3 = 79 **Using ones digit**: 70 × 6 = 420, so 7□ x 6 = 474, 4 x 6 = 24 and 4 x 6 = 54, □ = 9.	**Place value**: 320 ÷ 4 = 80, 344 - 320 = 24, 24 ÷ 4 = 6, 80 + 6 = 86 **Tidy numbers**: 360 ÷ 4 = 90, 90 – 4 = 86 **Halve and third both**: 344 ÷ 4 = 172 ÷ 2 = 86 **Double or triple divisor**: 344 ÷ 8 = 43, 43 x 2 = 86 **Using ones digit**: 80 × 4 = 320, so 8□ x 4 = 344, 6 x 4 = 24, □ = 6.
Place value: 400 ÷ 8 = 50, 432 – 400 = 32, 32 ÷ 8 = 4, 50 + 4 = 54 **Tidy numbers**: As above **Halve and third both**: 432 ÷ 8 = 216 ÷ 4 = 108 ÷ 2 = 54 **Using ones digit**: 50 × 8 = 400, so 5□ x 8 = 432, 8 x 4 = 32 or 8 x 9 = 72, □ = 4. **Fraction of first number: 216** ÷ 8 = 27, 27 x 2 = 54	**Place value**: 280 ÷ 7 = 40, 315 - 280 = 35, 35 ÷ 7 = 5, 40 + 5 = 45 **Tidy numbers**: 350 ÷ 7 = 50, 50 – 5 = 45 **Using ones digit**: 40 × 7 = 280, so 4□ x 7 = 315, 7 x 5 = 35, □ = 5.

Card A

Place value: 150 ÷ 5 = 30, 160 – 150 = 10, 10 ÷ 5 = 2, 30 + 2 = 32 **Tidy numbers**: As above **Double or triple divisor**: 160 ÷ 10 = 16, 16 × 2 = 32 **Fraction of first number: 80** ÷ 5 = 16, 16 x 2 = 32	**Place value**: 360 ÷ 3 = 120, 381 – 360 = 21, 21 ÷ 3 = 7, 120 + 7 = 127 **Tidy numbers**: 390 ÷ 3 = 130, 130 – 3 = 127 **Halve and third both**: 300 ÷ 3 = 100, 81 ÷ 9 = 9, 81 ÷ 3 = 27, 100 + 27 = 127 **Using ones digit**: 120 × 3 = 360, so 12□ x 3 = 381, 7 x 3 = 21, □ = 7.
Place value: 240 ÷ 6 = 40, 258 - 240 = 18, 18 ÷ 6 = 3, 40 + 3 = 43 **Tidy numbers**: As above **Halve and third both**: 258 ÷ 6 = 129 ÷ 3 = 43 **Using ones digit**: 40 × 6 = 240, so 4□ x 6 = 258, 3 x 6 = 18 and 8 x 6 = 48, □ = 3.	**Place value**: 80 ÷ 4 = 20, 112 - 80 = 32, 32 ÷ 4 = 8, 20 + 8 = 28 **Tidy numbers**: 120 ÷ 4 = 30, 30 – 2 = 28 **Halve and third both**: 112 ÷ 4 = 56 ÷ 2 = 28 **Double or triple divisor**: 112 ÷ 8 = 14, 14 x 2 = 28 **Using ones digit**: 20 × 4 = 80,so 2□ x 4 = 112, 3 x 4 = 12 or 8 x 4 = 32, □ = 8. **Fraction of first number: 56** ÷ 4 = 14, 14 x 2 = 28
Place value: 240 ÷ 8 = 30, 288 – 240 = 48, 48 ÷ 8 = 6, 30 + 6 = 36 **Tidy numbers**: 320 ÷ 8 = 40, 40 – 4 = 36 **Halve and third both**: 288 ÷ 8 = 144 ÷ 4 = 72 ÷ 2 = 36 **Double or triple divisor**: 288 ÷ 24 = 12, 12 x 3 = 36 **Using ones digit**: 3□ x 8 = 288, 6 x 8 = 48, □ = 6 **Fraction of first number: 72** ÷ 8 = 9, 9 x 4 = 36	**Place value**: 140 ÷ 7 = 20, 182 - 140 = 42, 42 ÷ 7 = 6, 20 + 6 = 26 **Tidy numbers**: 210 ÷ 7 = 30, 30 – 4 = 26 **Using ones digit**: 20 × 7 = 140, so 2□ x 7 = 185, 7 x 6 = 42, □ = 6.

Card B

Place value: 150 ÷ 3 = 50, 162 – 150 = 12, 12 ÷ 3 = 4, 50 + 4 = 54 **Double or triple divisor**: 162 ÷ 9 = 18, 18 ×3 = 54 **Using ones digit**: 50 ×3 = 150, so 5□ x 3 = 162, 4 x 3 = 12, □ = 4 **Fraction of first number: 81** ÷ 3 = 27, 27 x 2 = 54	**Place value**: 360 ÷ 9 = 40, 396 – 360 = 36, 36 ÷ 9 = 4, 40 + 4 = 44 **Tidy numbers**: *As* above **Halve and third both**: 396 ÷ 9 = 132 ÷ 3 = 44 **Double or triple divisor**: 396 ÷ 36 = 11, 11 x 4 = 44 **Using ones digit**: 40 ×9 = 360, so 4□ x 9 = 396, 4 x 9 = 36, □ = 4. **Fraction of first number: 198** ÷ 9 = 22, 22 x 2 = 44
Place value: 150 ÷ 5 = 30, 195 - 150 = 45, 45 ÷ 5 = 9, 30 + 9 = 39 **Tidy numbers**: 200 ÷ 5 = 40, 40 – 1 = 39 **Double or triple divisor**: 190 ÷ 10 = 19, 190 ÷ 5 = 38, 195 ÷ 5 = 39	**Place value**: 440 ÷ 4 = 110, 472 - 440 = 32, 32 ÷ 4 = 8, 110 + 8 = 118 **Tidy numbers**: 480 ÷ 4 = 120,120 – 2 = 118 **Halve and third both**: 472 ÷ 4 = 236 ÷ 2 = 118 **Double or triple divisor**: 400 ÷ 4 = 100, 72 ÷ 8 = 9, 72 ÷ 4 = 18, 100 + 18 = 118 **Using ones digit**: 110 ×4 = 440, so 11□ x 4 = 472, 3 x 4 = 12 or 8 x 4 = 32, □ = 8.
Place value: 350 ÷ 7 = 50, 364 – 350 = 14, 14 ÷ 7 = 2, 50 + 2 = 52 **Tidy numbers**: *As* above **Halve and third both**: NA **Double or triple divisor**: NA **Using ones digit**: 50 × 7 = 350, so 5□ x 7 = 364, 2 x 7 = 14, □ = 2 **Fraction of first number: 182** ÷ 7 = 26, 26 x 2 = 52	**Place value**: 180 ÷ 6 = 30, 204 - 180 = 24, 24 ÷ 6 = 4, 30 + 4 = 34 **Tidy numbers**: *As* above or 240 ÷ 6 = 40, 40 – 6 = 34 **Halve and third both**: 204 ÷ 6 = 102 ÷ 3 = 34 **Using ones digit**: 30 × 6 = 180, so 3□ x 6 = 204, 4 x 6 = 24 or 9 x 6 = 54 , □ = 4 **Fraction of first number: 102** ÷ 6 = 17, 17 x 2 = 34

Card C

Place value: 540 ÷ 9 = 60, 603 – 540 = 63, 63 ÷ 9 = 7, 60 + 7 = 67 **Tidy numbers**: 630 ÷ 9 = 70, 70 – 3 = 67 **Halve and third both**: 603 ÷ 9 = 201 ÷ 3 = 67 **Using ones digit**: 60 ×9 = 540, so 6□ x 9 = 603, 7 x 9 = 63, □ = 7.	**Place value**: 320 ÷ 8 = 40, 384 – 320 = 364, 64 ÷ 8 = 8, 40 + 8 = 48 **Tidy numbers**: 400 ÷ 8 = 50, 50 – 2 = 48 **Halve and third both**: 384 ÷ 8 = 192 ÷ 4 = 96 ÷ 2 = 48 **Using ones digit**: 40 ×8 = 320, so 4□ x 8 = 384, 3 x 8 = 24 or 8 x 8 = 64, □ = 4 **Fraction of first number: 96** ÷ 8 = 12, 12 x 4 = 48
Place value: 250 ÷ 5 = 50, 275 - 250 = 25, 25 ÷ 5 = 5, 50 + 5 = 55 **Tidy numbers**: As above or 300 ÷ 5 = 60, 60 – 5 = 55 **Double or triple divisor**: 270 ÷ 10 = 27, 270 ÷ 5 = 54, 275 ÷ 5 = 55	**Place value**: 320 ÷ 4 = 80, 352 - 320 = 32, 32 ÷ 4 = 8, 80 + 8 = 88 **Tidy numbers**: 360 ÷ 4 = 90, 90 – 2 = 88 **Halve and third both**: 352 ÷ 4 = 176 ÷ 2 = 88 **Using ones digit**: 80 ×4 = 320, so 8□ x 4 = 352, 3 x 4 = 12 or 8 x 4 = 32, □ = 8 **Fraction of first number: 88** ÷ 4 = 22, 22 x 4 = 88
Place value: 210 ÷ 7 = 30, 238 – 210 = 28, 28 ÷ 7 = 4, 30 + 4 = 34 **Tidy numbers**: As above or 280 ÷ 7 = 40, 40 – 6 = 34 **Using ones digit**: 30 × 7 = 210, so 3□ x 7 = 238, 4 x 7 = 28, □ = 4	**Place value**: 600 ÷ 6 = 100, 606 - 600 = 6, 6 ÷ 6 = 1, 100 + 1 = 101 **Halve and third both**: 606 ÷ 6 = 202 ÷ 2 = 101 **Using ones digit**: 100 × 6 = 600, so 10□ x 6 = 606, 1 x 6 = 6 , □ = 1

Place value: 360 ÷ 9 = 40, 423 – 360 = 63, 63 ÷ 9 = 7, 40 + 7 = 47 **Tidy numbers**: 450 ÷ 9 = 50, 50 – 3 = 47 **Halve and third both**: 423 ÷ 9 = 141 ÷ 3 = 47 **Using ones digit**: 40 × 9 = 360, so 4□ x 9 = 423, 7 x 9 = 63, □ = 7	**Place value**: 600 ÷ 3 = 200, 39 ÷ 3 = 13, 200 + 13 = 213 **Tidy numbers**: As above or 630 ÷ 3 = 210, 639 – 630 = 9, 9 ÷ 3 = 3, 210 + 3 = 213 **Double or triple divisor**: 639 ÷ 9 = 71, 71 x 3 = 213 **Using ones digit**: 210 ×3 = 630, so 21□ x 3 = 639 3 x 3 = 9, □ = 3
Place value: 420 ÷ 7 = 60, 483 - 420 = 63, 63 ÷ 7 = 9, 60 + 9 = 69 **Tidy numbers**: As above or 490 ÷ 7 = 70, 70 – 1 = 69 **Using ones digit**: 60 ×7 = 420, so 6□ x 7= 483, 9 x 7 = 63, □ = 9 **Fraction of first number: 161** ÷ 7 = 23, 23 x 3 = 69	**Place value**: 160 ÷ 8 = 20, 192 - 160 = 32, 32 ÷ 8 = 4, 20 + 4 = 24 **Tidy numbers**: 200 ÷ 8 = 25, 25 – 1 = 24 **Halve and third both**: 192 ÷ 8 = 96 ÷ 4 = 48 ÷ 2 = 24 **Double or triple divisor**: 192 ÷ 16 = 12, 192 ÷ 4 = 24 **Using ones digit**: 20 ×8 = 160, so 2□ x 8= 192, 4 x 8 = 32 or 9 x 8 = 72, □ = 4 **Fraction of first number: 96** ÷ 8 = 12, 12 x 2 = 24
Place value: 90 ÷ 9 = 10, 144 –90 = 54, 54 ÷ 9 = 6, 10 + 6 = 16 **Tidy numbers**: As above or 180 ÷ 9 = 20, 20 – 4 = 16 **Halve and third both**: 144 ÷ 9 = 48 ÷ 3 = 16 **Double or triple divisor**: 144 ÷ 18 = 8 **Using ones digit**: 10 × 9 = 90, so 1□ x 9 = 144, 6 x 9 = 54, □ = 6 **Fraction of first number: 72** ÷ 9 = 8, 8 x 2 = 16	**Place value**: 300 ÷ 6 = 50, 336 - 300 = 36, 36 ÷ 6 = 6, 50 + 6 = 56 **Tidy numbers**: As above or 360 ÷ 6 = 60, 60 – 4 = 56 **Halve and third both**: 336 ÷ 6 = 112 ÷ 2 = 56 **Double or triple divisor**: NA **Using ones digit**: 50 × 6 = 300, so 5□ x 6 = 336, 1 x 6 = 6 or 6 x 6 = 36, □ = 6 **Fraction of first number: 168** ÷ 6 = 28, 28 x 2 = 56

Place value: 300 ÷ 5 = 60, 345 – 300 = 45, 45 ÷ 5 = 9, 60 + 9 = 69 **Tidy numbers**: 350 ÷ 5 = 70, 70 – 1 = 69 **Double or triple divisor**: 340 ÷ 10 = 34, 340 ÷ 5 = 68, 345 ÷ 5 = 69	**Place value**: 180 ÷ 3 = 60, 201 – 180 = 21, 21 ÷ 3 = 7, 60 + 7 = 67 **Tidy numbers**: 210 ÷ 3 = 70, 70 – 3 = 67 **Using ones digit**: 70 ×3 = 210, so 7□ x 3 = 201, 7 x 3 = 21, □ = 7
Place value: 300 ÷ 6 = 50, 342 - 300 = 42, 42 ÷ 6 = 7, 50 + 7 = 57 **Tidy numbers**: As above or 360 ÷ 6 = 60, 60 – 3 = 57 **Halve and third both**: 342 ÷ 6 = 171 ÷ 3 = 57 **Double or triple divisor**: 342 ÷ 18 = 19, 19 × 3 = 57 **Using ones digit**: 50 ×6 = 300, so 5□ x 6= 342, 2 x 6 = 12 or 7 x 6 = 42, □ = 7 **Fraction of first number: 114** ÷ 6 = 19, 19 x 3 = 57	**Place value**: 200 ÷ 4 = 50, 228 - 200 = 28, 28 ÷ 4 = 7, 50 + 7 = 57 **Tidy numbers**: As above or 240 ÷ 4 = 60, 60 – 3 = 57 **Halve and third both**: 228 ÷ 4 = 114 ÷ 2 = 57 **Double or triple divisor**: 228 ÷ 12 = 19, 19 × 3 = 57 **Using ones digit**: 50 ×4 = 200, so 5□ x 4= 228, 2 x 4 = 8 or 7 x 4 = 28, □ = 7 **Fraction of first number: 76** ÷ 4 = 19, 19 x 3 = 57
Place value: 160 ÷ 8 = 20, 200 –160 = 40, 40 ÷ 8 = 5, 20 + 5 = 25 **Tidy numbers**: As above or 200 ÷ 8 = 25, **Halve and third both**: 200 ÷ 8 = 100 ÷ 4 = 50 ÷ 2 = 25 **Using ones digit**: 20 × 8 = 160, so 2□ x 8 = 200, 5 x 8 = 40, □ = 5 **Fraction of first number: 40** ÷ 8 = 5, 5 x 5 = 25	**Place value**: 140 ÷ 7 = 20, 189 - 140 = 49, 49 ÷ 7 = 7, 20 + 7 = 27 **Tidy numbers**: As above or 210 ÷ 7 = 30, 30 – 3 = 27 **Double or triple divisor**: 189 ÷ 21 = 9, 9 x 3 = 27 **Using ones digit**: 20 × 7 = 140, so 2□ x 7 = 189, 7 x 7 = 49, □ = 7 **Fraction of first number: 63** ÷ 7 = 9, 9 x 3 = 27

Place value: 270 ÷ 9 = 30, 333 – 270 = 63, 63 ÷ 9 = 7, 30 + 7 = 37 **Tidy numbers**: 360 ÷ 9 = 40, 40 – 3 = 37 **Halve and third both**: 333 ÷ 9 = 111 ÷ 3 = 37, **Using ones digit**: 30 × 9 = 270, so 3□ x 9 = 333, 7 x 9 = 63, □ = 7	**Place value**: 240 ÷ 8 = 30, 312 – 240 = 72, 72 ÷ 8 = 9, 30 + 9 = 39 **Tidy numbers**: 320 ÷ 8 = 40, 40 – 1 = 39 **Using ones digit**: 70 ×3 = 210, so 7□ x 3 = 201, 7 x 3 = 21, □ = 7 **Fraction of first number: 104** ÷ 8 = 13, 13 x 3 = 39
Place value: 300 ÷ 5 = 60, 330 - 300 = 30, 30 ÷ 5 = 6, 60 + 6 = 66 **Tidy numbers**: As above or 350 ÷ 5 = 70, 70 – 3 = 67 **Double or triple divisor**: 330 ÷ 10 = 33, 33 × 2 = 66	**Place value**: 480 ÷ 4 = 120, 504 - 480 = 24, 24 ÷ 4 = 6, 120 + 6 = 126 **Tidy numbers**: As above or 500 ÷ 4 = 125, 125 + 1 = 126 **Halve and third both**: 504 ÷ 4 = 252 ÷ 2 = 126 **Double or triple divisor**: 504 ÷ 24 = 21, 21 × 6 = 126 **Using ones digit**: 120 ×4 = 480, so 12□ x 4= 504, 1 x 4 = 4 or 6 x 4 = 24, □ = 76 **Fraction of first number: 252** ÷ 4 = 63, 63 x 2 = 126
Place value: 240 ÷ 4 = 60, 256 –240 = 16, 16 ÷ 4 = 4, 60 + 4 = 64 **Tidy numbers**: As above or 280 ÷ 4 = 70, **Halve and third both**: 256 ÷ 4 = 128 ÷ 2 = 64 **Double or triple divisor**: 256 ÷ 8 = 32, 32 x 2 = 64 **Using ones digit**: 60 × 4 = 240, so 6□ x 4 = 256, 4 x 4 = 16 or 9 x 4 = 36, □ = 4 **Fraction of first number: 64** ÷ 4 = 16, 16 x 4 = 64	**Place value**: 330 ÷ 3 = 110, 354 - 330 = 24, 24 ÷ 3 = 8, 110 + 8 = 118 **Tidy numbers**: As above or 360 ÷ 3 = 120, 120 – 2 = 118 **Double or triple divisor**: 354 ÷ 6 = 59, 59 x 2 = 118 **Using ones digit**: 110 × 3 = 330, so 11□ x 3 = 354, 8 x 3 = 24, □ = 8

Card G