## Factors

1. Find and circle pairs of factors on the grids below. Factor pairs are adjacent to each other and can be found vertically or horizontally.

Factors of 20

| 7 | 1 | 20 |
| :---: | :---: | :---: |
| 5 | 3 | 9 |
| 4 | 10 | 2 |

Factors of 12

| 1 | 5 | 8 |
| :---: | :---: | :---: |
| 12 | 6 | 2 |
| 4 | 3 | 10 |

2. Travel from the start to the finish by colouring the factors of 18.

| Start |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 10 | 5 |  |  |
| 18 | 2 | 9 |  |  |
| 4 | 7 | 3 |  |  |
| 8 | 11 | 6 |  |  |
|  |  |  |  | Finish |

3. Spot the odd one out and explain why.
A. 000000

c. 0900000000000000000000
4. Find and circle pairs of factors on the grids below. Factor pairs are adjacent to each other and can be found vertically or horizontally.

Factors of 16

| 3 | 9 | 10 | 4 |
| :---: | :---: | :---: | :---: |
| 2 | 8 | 5 | 4 |
| 5 | 11 | 16 | 7 |
| 12 | 3 | 1 | 6 |

Factors of 40

| 12 | 11 | 6 | 1 |
| :---: | :---: | :---: | :---: |
| 5 | 9 | 20 | 40 |
| 10 | 4 | 8 | 7 |
| 2 | 15 | 5 | 6 |

5. Travel from the start to the finish by colouring the factors of 24.

| $y n y y$ | Start |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 6 | 7 | 11 |  |  |
| 21 | 12 | 1 | 20 |  |  |
| 10 | 9 | 3 | 9 |  |  |
| 23 | 16 | 4 | 8 |  |  |
| 18 | 5 | 22 | 24 |  |  |

6. Spot the odd one out and explain why.


## Factors

7. Find and circle pairs of factors on the grids below. Factor pairs are adjacent to each other and can be found vertically, horizontally or diagonally.

Factors of 28

| 3 | 9 | 6 | 1 |
| :---: | :---: | :---: | :---: |
| 11 | 2 | 12 | 28 |
| 8 | 7 | 14 | 5 |
| 4 | 5 | 10 | 6 |

Factors of 30

| 2 | 4 | 8 | 5 |
| :---: | :---: | :---: | :---: |
| 11 | 15 | 3 | 6 |
| 7 | 10 | 12 | 8 |
| 4 | 9 | 1 | 30 |

8. Find a route from start to finish that travels through factors of the same two-digit number. Clue: The digits of this number total 6 when added together.

| $y n y y$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 6 | 21 | 9 | 5 |  |
| 10 | 7 | 4 | 8 |  |
| 1 | 2 | 12 | 11 |  |
| 9 | 14 | 42 | 3 |  |
| 4 | 5 | 10 | 1 |  |

9. Spot the odd one out and explain why.

C. two multiplied by twenty-four
B. $6 \times 8$
D. three lots of fifteen

RPS
HW/Ext

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## Homework/Extension

## Factors

## Developing

1. $20=$ ( 1 and 20), (5 and 4), (10 and 2)

12 = ( 1 and 12 ), ( 6 and 2 ), ( 4 and 3 )
2. The factors from start to finish are: 1, 18,2,9,3 and 6
3. $B$ is the odd one out because the others are multiplying factors of 30 . $B$ is multiplying factors of 25 .

## Expected

4. $16=(1$ and 16$)$, (2 and 8 ), (4 and 4) $40=(1$ and 40$)$, ( 4 and 10), ( 5 and 8 )
5. The factors from start to finish are: $2,6,12,1,3,4,8$ and 24
6. $B$ is the odd one out because the others are multiplying factors of 36 . $B$ is multiplying factors of 33.

## Greater Depth

7. 28 = (1 and 28), (2 and 14), (4 and 7)
$30=(1$ and 30$)$, ( 2 and 15 ), ( 3 and 10), ( 5 and 6 )
8. The number is 42 and the factors from start to finish are: $6,21,7,2,14,42,3$ and 1
9. $D$ is the odd one out because the others are multiplying factors of 48 . $D$ is multiplying factors of 45 .
