

Number Relationships

Name: _____

Date: _____

1. The relationship between adding and subtracting

Circle or highlight the statements which are correct (there is more than one)

$6 + 2 = 8$ $2 = 8 - 6$ $8 - 2 = 6$

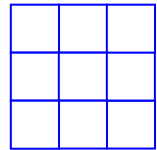
$6 - 2 = 8$ $6 + 8 = 2$ $6 = 2 + 8$

2. Demonstrate a square number

A square number is a number times itself. E.g. $3 \times 3 = 9$ so 9 is a square number.

You could show this by drawing three rows of three squares, total 9 squares

Demonstrate another square number, using squares.



3. Recognising multiples

What is the next number in this sequence?

21 28 35 _____

4. The relationship between multiplying and dividing

Circle or highlight the statements which are correct (there is more than one).

$4 \times 12 = 3$ $3 \times 4 = 12$ $12 \div 3 = 4$

$4 = 3 \div 12$ $3 = 12 \div 4$ $4 \times 3 = 12$

5. The relationship between fractions, decimals and parts of £

These expressions are all parts of a whole (less than one).

Finish sorting them into their correct columns.

quarter

0.50

$\frac{1}{4}$

50p

half

$\frac{3}{4}$

75p

0.25

$\frac{1}{2}$

25p

0.75

three-quarters

Fraction name	Fraction in figures	As a decimal	As a part of £
quarter			
		0.5	
			75p

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6. Recognising multiples

(a) How can you tell if a number can be divided by 5?

(b) Fill in the missing number.

10,100 10,110 _____ 10,130 10,140

7. Recognising multiples (read the **dividing tips** first!)

(a) Circle or highlight the odd one out.

51 8,124,123 892 39

(b) Circle or highlight the odd one out.

91 185,436 99 45,018

8. Recognising square numbers

Fill in the missing numbers.

1 4 _____ 16 _____ 36 49 64 _____ 100

9. Recognising factors

(a) Complete this list of factors of 12:

1 _____ _____ 4 _____ 12

(b) Now list all the factors of 20:

10. Recognising the relationship between fractions and percentages

Shade and label these circles to show the fraction and percentage of the whole.

Circle 1: Fraction $\frac{1}{4}$, Percentage =

Circle 2: Fraction $\frac{3}{4}$, Percentage =

Circle 3: Fraction $\frac{1}{2}$, Percentage =

Circle 4: 1 whole, Percentage =

Some handy tips on dividing

If you add the digits of a number and the sum can be **divided by 3** so can the original number.

411 $4+1+1=6$

so 3 will go into 411

If you add the digits of a number and the sum can be **divided by 9** so can the original number

8,145 $8+1+4+5=18$ $1+8=9$

so 9 will go into 8,145

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ANSWERS

1.

$$\boxed{6 + 2 = 8} \quad \boxed{2 = 8 - 6} \quad \boxed{8 - 2 = 6}$$

$$6 - 2 = 8 \quad 6 + 8 = 2 \quad 6 = 2 + 8$$

2. Suitable drawing of a square number. E.g. 4 x 4 square for 16, or a 5 x 5 square for 25, etc.

3. 42 (multiples of 7)

4.

$$4 \times 12 = 3 \quad \boxed{3 \times 4 = 12} \quad \boxed{12 \div 3 = 4}$$

$$4 = 3 \div 12 \quad \boxed{3 = 12 \div 4} \quad \boxed{4 \times 3 = 12}$$

5. Complete the table

<i>name</i>	<i>fraction</i>	<i>decimal</i>	<i>Part of £</i>	<i>Percentage (for question 10)</i>
quarter	1/4	0.25	25p	25%
half	1/2	0.50	50p	50%
three-quarters	3/4	0.75	75p	75%

6a. Ends in 5 or 0

6b. 10,120 (add 10)

7a. 892 (3 goes into all the others)

7b. 91 (9 goes into all the others)

8. Fill in the missing numbers (square numbers)

1 4 9 16 25 36 49 64 81 100

9a. 1 2 3 4 6 12

9b. 1 2 4 5 10 20

10. Correctly shaded circles and correct percentages to match the given fractions

(see last column of table in answer to question 5 for percentages)