

Yr 6 Multiplication and Division Unit 1 (6277)

Additional teacher instructions for practice sheets

These notes indicate which practice sheets are most appropriate for which groups.

Day 1 Common multiples and factors Sheet 1

Working towards ARE / Working at ARE / Greater Depth

Children working at Greater Depth should also complete the challenge.

Day 1 Common multiples and factors Sheet 2

Working towards ARE / Working at ARE / Greater Depth

Children working at Greater Depth should also complete the challenge.

Day 2 Prime numbers Sheet 1

Working towards ARE

Day 2 Prime numbers Sheet 2

Working at ARE / Greater Depth

Common multiples and factors

Sheet 1

Which of these numbers are common multiples of 3 and 4?

9, 12, 15, 16, 18, 20, 24, 30, 34, 36

Which of these numbers are common multiples of 3 and 5?

9, 12, 15, 16, 18, 20, 24, 30, 34, 36

Which of these numbers are common multiples of 4 and 6?

9, 12, 15, 16, 18, 20, 24, 30, 34, 36

Challenge

What is the lowest common multiple of 6 and 9? And of 6 and 15?

Common multiples and factors

Sheet 2

Which of these numbers are common factors of 12 and 16?

2, 3, 4, 5, 6, 7, 8, 9, 10

Which of these numbers are common factors of 24 and 30?

2, 3, 4, 5, 6, 7, 8, 9, 10

Which of these numbers are common factors of 18 and 27?

2, 3, 4, 5, 6, 7, 8, 9, 10

Challenge

What is the highest common factor of 24 and 32? And of 45 and 48?

Prime numbers

Sheet 1

There are only two numbers between 20 and 30 which are prime.
Which numbers are they?

These are the prime numbers less than 20:
2, 3, 5, 7, 11, 13, 17, 19. Remember 1 is not a prime number.

Which of these numbers can be made by multiplying two prime numbers together? Find at least six numbers. Each time, write the number and its pair of prime factors.

4	5	6	7	10
12	14	15	16	18
20	22	24	25	26
30	32	33	34	35

Prime numbers

Sheet 2

There are only four numbers between 20 and 40 which are prime.
Which numbers are they?

These are the prime numbers less than 20:
2, 3, 5, 7, 11, 13, 17, 19. Remember 1 is not a prime number.

Find at least ten numbers between 9 and 40 which can be made by multiplying a pair of prime numbers together. Each time, write the number and its pair of prime factors.

Challenge

Exactly how many numbers between 1 and 40 can be made by multiplying a pair of prime numbers? Can you be sure you have them all?

Multiplication and division

Answers

Day 1 Common multiples and factors Sheet 1

Common multiples of 3 and 4: 12, 24, 36

Common multiples of 3 and 5: 15, 30

Common multiples of 4 and 6: 12, 24

Challenge

18 and 30

Day 1 Common multiples and factors Sheet 2

Common factors of 12 and 16: 2, 4

Common factors of 24 and 30: 2, 3, 6

Common factors of 18 and 27: 3, 9

Challenge

8 and 3

Day 2 Prime numbers Sheet 1

The prime numbers between 20 and 30 are: 23 and 29.

Numbers that can be made by multiplying two prime numbers together:

$$4 = 2 \times 2$$

$$6 = 2 \times 3$$

$$10 = 2 \times 5$$

$$14 = 2 \times 7$$

$$15 = 3 \times 5$$

$$22 = 2 \times 11$$

$$25 = 5 \times 5$$

$$26 = 2 \times 13$$

$$33 = 3 \times 11$$

$$34 = 2 \times 17$$

$$35 = 5 \times 7$$

Day 2 Prime numbers Sheet 2

The prime numbers between 20 and 40 are: 23, 29, 31 and 37

Numbers between 9 and 40 that can be made by multiplying two prime numbers together:

$$10 = 2 \times 5$$

$$14 = 2 \times 7$$

$$15 = 3 \times 5$$

$$21 = 3 \times 7$$

$$22 = 2 \times 11$$

$$25 = 5 \times 5$$

$$26 = 2 \times 13$$

$$33 = 3 \times 11$$

$$34 = 2 \times 17$$

$$35 = 5 \times 7$$

$$38 = 2 \times 19$$

$$39 = 3 \times 13$$

Challenge

$$2 \times 3 = 6 \quad 2 \times 5 = 10$$

$$2 \times 7 = 14 \quad 2 \times 11 = 22$$

$$2 \times 13 = 26 \quad 2 \times 17 = 34$$

$$2 \times 19 = 38 \quad 3 \times 5 = 15$$

$$3 \times 7 = 21 \quad 3 \times 11 = 33$$

$$3 \times 13 = 39 \quad 5 \times 7 = 35$$

If you include squared numbers $2 \times 2 / 3 \times 3 / 5 \times 5$