

Sutton Maths Class

Year 5 - Week 8 - Factors and Multiples

Starter:

1 $\frac{2}{3} - \frac{1}{2} =$

2 $\frac{1}{12} \div \frac{4}{6} =$

3 What is 0.12 as a fraction?

4 What is $\frac{9}{10}$ as a percentage?

6 What is 0.28 as a fraction?

7 What is 30% as a decimal?

8 $0.9 \times 0.2 =$

9 $(0.5)^2 =$

10 $25 \div 0.5 =$

11 A rectangle has length 0.5m and width 20cm. Find the area in m^2 .

Hint: make sure the units are both in metres before multiplying to make it easier (remember that square metres don't convert in the same way as metres).

12 Find $\frac{2}{5}$ of 255cm.

13 Find 92% of £60.

14 What is 15cm as a percentage of 5m?

15 What is 300g as a fraction of 3kg?

16 Calculate $-15 - 3$

17 Calculate $10 - -9$

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18 $-\pounds 500 \div -20 =$

21 $60 \times -4 =$

22 $(-8)^2 =$

23 What is the highest common factor of 50 and 30?

24 Draw a factor tree for 150 and write 150 as a product of primes.

25 What are the factors of 42? Which of these are prime?

26 Which of the following are prime? 60, 31, 2, 8, 19, 65, 100, 13, 17

27 Is 1 a prime number? Why?

28 Find x and y

$$180 = 2^x \times 3^y \times 5$$

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Factors and Multiples

Questions:

- 1 What are the first five multiples of 7? *7, 14, 21, 28, 35*
- 2 18 is a multiple of 18, true or false? *True, $18 \times 1 = 18$*
- 3 5 is a multiple of 65, true or false? *False, 5 is a factor.*
- 4 60 is a multiple of 10, true or false? *True, $10 \times 6 = 60$*
- 5 6935 is a multiple of 5, true or false? *True, ends in 5 or 0 so*
- 6 7262 is a multiple of 2? *True, ends in even number*
- 7 375 is a multiple of 25, true or false? *True*
- 8 What is the **highest common factor** of 60 and 18? *6*
- 9 What is the **highest common factor** of 32 and 40? *8*
- 10 What is the **highest common factor** of 1 and 18? *1*
- 11 What is the **lowest common multiple** of 5 and 12? *60*
- 12 What is the **lowest common multiple** of 6 and 8? *24*
- 13* What is the **lowest common multiple** of 5, 3 and 7? *105*
- 14* What is the **highest common factor** of 20, 40 and 25? *5*
- 15 Find all of the *prime* numbers that multiply to make 124.
Complete the following using prime numbers:

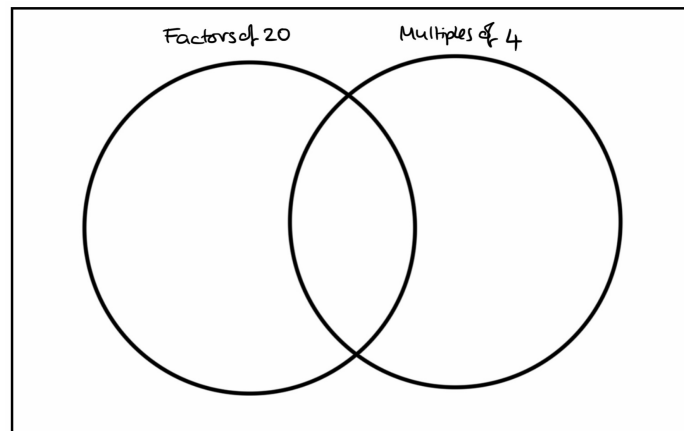
$$124 = \square \times \square \times \square$$

2 2 31

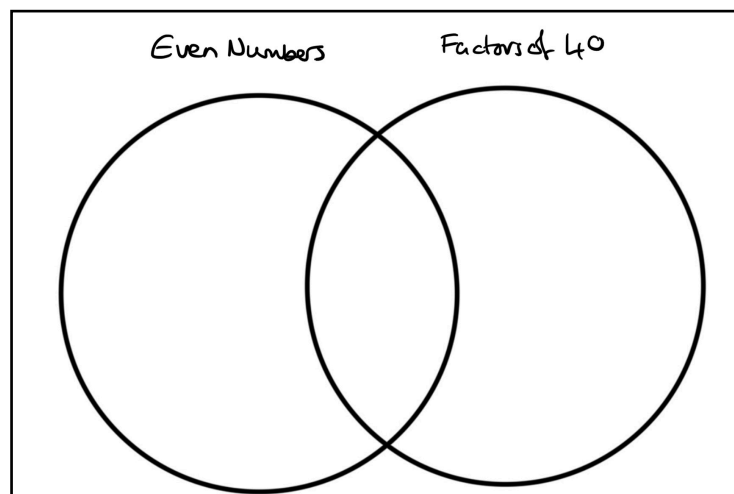


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- 16 Fill in the following Venn diagram using the following numbers:
1, 2, 3, 4, 5, 7, 9, 10, 11, 13, 15, 16, 17, 18, 20, 21, 24, 30.



- 17 Fill in the following Venn diagram with positive whole numbers **less than 40**.



- 18 'All prime numbers are odd'. True or false? Why?
- 19 A train to Birmingham leaves Sutton Coldfield Station every 20 minutes. The first train leaves each day at 7am. Katie wants to get the bus after 9am. What time is the first suitable bus?
- 20 A red light flashes every 6 seconds and a green light flashes every 10 seconds. They flash together. How long will it be before they flash together again?