

Name: ..... Class: .....

Find all the factor pairs of a number.

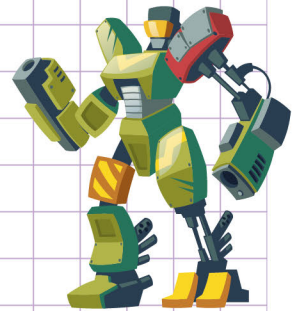
A factor pair of a number is a set of two numbers (which are factors to that number) whose product is that number

a. Find all factor pairs of 40.

b. Find all factor pairs of 81.

c. Find all factor pairs of 100.

d. Find all factor pairs of 72.



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**a. Find all factor pairs of 40.**

First of all, let's write the factors of 40

Factors of 40 : { 1, 2, 4, 5, 8, 10, 20, 40 }

Secondly, we now select 2 numbers that when multiplied together gives 40

$$\{ 40 \times 1 \} = 40 \qquad \{ 10 \times 4 \} = 40$$

$$\{ 20 \times 2 \} = 40 \qquad \{ 8 \times 5 \} = 40$$

Finally, we write out all the factor pairs of 40

{(40 and 1), (20 and 2), (10 and 4), ( 8 and 5)}

**b. Find all factor pairs of 81.**

Factors of 81 : { 1, 3, 9, 27, 81 }

$$\{ 1 \times 81 \} = 81 \qquad \{ 9 \times 9 \} = 81$$

$$\{ 3 \times 27 \} = 81$$

Finally, we write out all the factor pairs of 81

{(1 and 81), (3 and 27), (9 and 9)}

**c. Find all factor pairs of 100.**

Factors of 100 : { 1, 2, 4, 5, 10, 20, 25, 50, 100 }

$$\{ 1 \times 100 \} = 100 \qquad \{ 4 \times 25 \} = 100 \qquad \{ 10 \times 10 \} = 100$$

$$\{ 2 \times 50 \} = 100 \qquad \{ 5 \times 20 \} = 100$$

Finally, we write out all the factor pairs of 100

{(1 and 100), (2 and 50), (4 and 25), ( 5 and 20), ( 10 and 10)}

**d. Find all factor pairs of 72.**

Factors of 72 : { 1, 2, 3, 6, 8, 9, 12, 24, 36, 72 }

$$\{ 1 \times 72 \} = 72 \qquad \{ 3 \times 24 \} = 72 \qquad \{ 8 \times 9 \} = 72$$

$$\{ 2 \times 36 \} = 72 \qquad \{ 6 \times 12 \} = 72$$

Finally, we write out all the factor pairs of 72

{(1 and 72), (2 and 36), (3 and 24), ( 6 and 12), ( 8 and 9)}

