

Division with Decimal Numbers

Task 1 : Use both Methods to calculate the answers to the following Division Problems...

| Division Problem | Method 1  | Method 2  | Answer |
|------------------|---|---|--------|
| $8 \div 2$       | <div>"Share 8 between 2 equal groups"</div> <div><div>8</div><div><div>4</div><div>4</div></div><div><div>←-----→</div><div>1 group = 4</div></div></div>                     | <div>"How many groups of 2 make 8"</div> <div><div>8</div><div><div>2</div><div>2</div><div>2</div><div>2</div></div><div>there are 4 groups of 2</div></div> | 4      |
| $12 \div 4$      | <div>"Share 12 between 4 equal groups"</div> <div><div>12</div><div><div></div><div></div><div></div><div></div></div><div><div>←-----→</div><div>1 group =</div></div></div> | <div>"How many groups of 4 make 12"</div> <div><div>12</div><div><div>4</div><div>-----</div></div><div>there are groups of 4</div></div>                     |        |
| $15 \div 5$      | <div></div> <div><div>15</div></div>  | <div></div> <div><div>15</div><div><div></div><div>-----</div></div></div>  |        |
| $20 \div 4$      |   |   |        |
| $18 \div 6$      |   |   |        |
| $24 \div 3$      |   |   |        |
| $24 \div 4$      |   |   |        |

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Task 2 : Choose either method 1 or method 2 to calculate the answers to the following Division Problems...

| Division Problem | Method 1   | Method 2  | Answer |
|------------------|--|---|--------|
| $0.8 \div 2$     | <div>"Share 0.8 between 2 equal groups"</div> <div>0.8</div>   | <div>"How many groups of 2 make 0.8"</div> <div>0.8</div>   |        |
| $1.2 \div 0.4$   | <div>"Share 1.2 between 0.4 equal groups"</div> <div>1.2</div> | <div>"How many groups of 0.4 make 1.2"</div> <div>1.2</div> |        |
| $1.5 \div 3$     |  |   |        |
| $1.6 \div 0.4$   |  |   |        |
| $3 \div 0.6$     |  |   |        |
| $0.6 \div 3$     |  |   |        |
| $2.4 \div 0.8$   |  |   |        |

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Task 3 : Investigate your answers and try to make a generalisation to help with the questions below...

| Division Problem | Method 1                          | Method 2                       | Answer |
|------------------|-----------------------------------|--------------------------------|--------|
| $12 \div 4$      | "Share 12 between 4 equal groups" | "How many groups of 4 make 12" |        |
| $1.2 \div 4$     |                                   |                                |        |
| $1.2 \div 0.4$   |                                   |                                |        |
| $0.12 \div 0.04$ |                                   |                                |        |

|  |   |   |
|--|---|---|
| $1.2 \div 4 =$<br>$1.2 \div 0.4 =$<br>$1.2 \div 0.04 =$<br>$1.2 \div 0.004 =$<br>$1.2 \div 0.0004 =$ | $16 \div 2 =$<br>$16 \div 0.2 =$<br>$16 \div 0.02 =$<br>$16 \div 0.002 =$<br>$16 \div 0.0002 =$           | $2.4 \div 6 =$<br>$2.4 \div 0.6 =$<br>$2.4 \div 0.06 =$<br>$2.4 \div 0.006 =$<br>$2.4 \div 0.0006 =$      |
| $5.4 \div 9 =$<br>$5.4 \div 0.9 =$<br>$5.4 \div 0.09 =$<br>$5.4 \div 0.009 =$<br>$5.4 \div 0.0009 =$ | $0.06 \div 3 =$<br>$0.06 \div 0.3 =$<br>$0.06 \div 0.03 =$<br>$0.06 \div 0.003 =$<br>$0.06 \div 0.0003 =$ | $0.14 \div 7 =$<br>$0.14 \div 0.7 =$<br>$0.14 \div 0.07 =$<br>$0.14 \div 0.007 =$<br>$0.14 \div 0.0007 =$ |

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Task 4 : Match up the following division problems that have the same answer...

Dividing by Decimals

$6 \div 0.2$

$3.2 \div 0.04$

$1.5 \div 0.3$

$0.032 \div 0.04$

$60 \div 0.02$

$1.5 \div 0.003$

$0.6 \div 0.2$

$0.015 \div 0.03$

$15 \div 0.3$

$0.6 \div 0.002$

$0.032 \div 0.004$

Dividing by Whole Numbers

$3200 \div 4$

$1500 \div 3$

$60 \div 2$

$320 \div 4$

$3.2 \div 4$

$32 \div 4$

$6 \div 2$

$1.5 \div 3$

$600 \div 2$

$15 \div 3$

