

## Division Reasoning Name:

16 x 20 is the same as 16 x 2 x 10

So .... 160 ÷ 20 is the same as 160 ÷ 10 ÷ 2

$$160 \div 10 = 16$$

$$16 \div 2 = 8$$

$$\text{So.. } 160 \div 20 = 8$$

We can create equivalent expression by

x or ÷ both parts of the expression by the same amount

$$\begin{array}{c} \div 10 \quad \div 10 \\ 16\cancel{0} \div 2\cancel{0} = 8 \end{array} \quad \begin{array}{c} \div 2 \quad \div 2 \\ 160 \div 20 = 8 \end{array}$$

$$16 \div 2 = 8 \quad 80 \div 10 = 8$$

### NOTE

Normally when dividing a multiple of 10 by a multiple of 10, we divide each part of the expression by 10 to remove the zeros.

i.e.  $45\cancel{0} \div 5\cancel{0}$      $400\cancel{0} \div 2\cancel{0}$      $24\cancel{0} \div 2\cancel{0}$      $180\cancel{0} \div 9\cancel{0}$      $10\cancel{0} \div 1\cancel{0}$   
is the same as  $45 \div 5$      $400 \div 2$      $24 \div 2$      $180 \div 9$      $10 \div 1$

Normally when dividing a multiple of 100 by a multiple of 100, we divide each part of the expression by 100 to remove the zeros.

i.e.  $45\cancel{00} \div 5\cancel{00}$      $40\cancel{00} \div 2\cancel{00}$      $24\ 0\cancel{00} \div 2\cancel{00}$      $10\cancel{00} \div 1\cancel{00}$   
is the same as  $45 \div 5$      $40 \div 2$      $240 \div 2$      $10$

$$a/ 240 \div 20 =$$

$$24 \div 2 =$$

$$a/ 270 \div 30 =$$

$$27 \div \underline{\hspace{1cm}} =$$

$$a/ 420 \div 60 =$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} =$$

$$a/ 450 \div 50 =$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} =$$

$$a/ 1600 \div 40 =$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} =$$

$$a/ 1800 \div 200 =$$

$$18 \div 2 =$$

$$a/ 4800 \div 600 =$$

$$48 \div \underline{\hspace{1cm}} =$$

$$a/ 4900 \div 700 =$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} =$$

$$a/ 2400 \div 800 =$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} =$$

$$a/ 2800 \div 700 =$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} =$$

$$3624 \div 6 =$$

$$3600 \div 6 + 24 \div 6 =$$

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

$$4914 \div 7 =$$

$$\underline{\hspace{1cm}} \div 7 + \underline{\hspace{1cm}} \div 7 =$$

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

$$1827 \div 9 =$$

$$\underline{\hspace{1cm}} \div \underline{\hspace{1cm}} + \underline{\hspace{1cm}} \div \underline{\hspace{1cm}}$$

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$