

We can use **rounding** to the nearest 10 or 100 to estimate division, e.g. $492 \div 5$: 492 is almost 500, so the answer is about 100. ($500 \div 5 = 100$)

1 Round to 10 or 100 to estimate an answer to each division.

- | | | |
|------------------------------|------------------------------|-------------------------------|
| a $99 \div 10 \approx$ _____ | f $41 \div 8 \approx$ _____ | k $499 \div 10 \approx$ _____ |
| b $62 \div 6 \approx$ _____ | g $41 \div 5 \approx$ _____ | l $207 \div 4 \approx$ _____ |
| c $29 \div 6 \approx$ _____ | h $82 \div 8 \approx$ _____ | m $212 \div 5 \approx$ _____ |
| d $39 \div 5 \approx$ _____ | i $399 \div 4 \approx$ _____ | n $313 \div 6 \approx$ _____ |
| e $22 \div 4 \approx$ _____ | j $199 \div 2 \approx$ _____ | o $293 \div 5 \approx$ _____ |

We know that $63 \div 7 = 9$, so $630 \div 7$ must equal 90.

2 Extend these division facts.

- | | | |
|------------------------|------------------------|------------------------|
| a $9 \div 3 =$ _____ | e $80 \div 4 =$ _____ | i $240 \div 4 =$ _____ |
| b $90 \div 3 =$ _____ | f $800 \div 4 =$ _____ | j $360 \div 6 =$ _____ |
| c $900 \div 3 =$ _____ | g $150 \div 5 =$ _____ | k $420 \div 7 =$ _____ |
| d $8 \div 4 =$ _____ | h $160 \div 4 =$ _____ | l $350 \div 5 =$ _____ |

3 Use the halve and halve again strategy to divide by 4.

- | | | |
|-----------------------|------------------------|------------------------|
| a $24 \div 4 =$ _____ | e $60 \div 4 =$ _____ | i $200 \div 4 =$ _____ |
| b $32 \div 4 =$ _____ | f $80 \div 4 =$ _____ | j $240 \div 4 =$ _____ |
| c $40 \div 4 =$ _____ | g $76 \div 4 =$ _____ | k $180 \div 4 =$ _____ |
| d $48 \div 4 =$ _____ | h $120 \div 4 =$ _____ | l $220 \div 4 =$ _____ |

4 Use the halve, halve again and halve again strategy to divide by 8.

- | | | |
|-----------------------|------------------------|------------------------|
| a $40 \div 8 =$ _____ | d $80 \div 8 =$ _____ | g $240 \div 8 =$ _____ |
| b $32 \div 8 =$ _____ | e $120 \div 8 =$ _____ | h $320 \div 8 =$ _____ |
| c $64 \div 8 =$ _____ | f $200 \div 8 =$ _____ | i $480 \div 8 =$ _____ |

5 Tick (✓) the estimates you think are reasonable and cross (X) the ones you think are wrong.

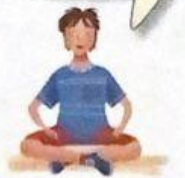
- | | |
|---|--------------------------|
| a $49 \text{ km} \div 5 \approx 10 \text{ km}$ | ☐ |
| b $151 \text{ kg} \div 3 \approx 60 \text{ km}$ | ☐ |
| c $239 \text{ tonnes} \div 6 \approx 40 \text{ tonnes}$ | ☐ |

- | | |
|---|--------------------------|
| d $1490 \text{ m} \div 10 \approx 150 \text{ m}$ | ☐ |
| e $160 \text{ hrs} \div 8 \approx 2 \text{ hrs}$ | ☐ |
| f $185 \text{ mins} \div 3 \approx 60 \text{ mins}$ | ☐ |

$\approx$ means approximately equal to.



$150 \div 3 = ?$
Think $15 \div 3 = 5$
so $150 \div 3 = 50$.



$36 \div 4 = ?$
Think $\frac{1}{2}$ of $36 = 18$.
 $\frac{1}{2}$ of $18 = 9$



$48 \div 8 = ?$
Think $\frac{1}{2}$ of $48 = 24$.
 $\frac{1}{2}$ of $24 = 12$
 $\frac{1}{2}$ of $12 = 6$

