

## Answers for Mental Multiplication Worksheet

It is important to note that these suggested answers are just one of the many possible strategies that children may use.

- $4 + 4 + 4 + 4 + 4 = 20$   
Possible strategy: knowledge of table facts  
 $4 \times 5 = 20$
- $6 \times 0 \times 17 \times 83 = 0$   
Possible strategy: knowledge of properties of zero  
Any number  $\times 0 = 0$
- $20 \times 1000 = 20\ 000$   
Possible strategy: multiplication of numbers of base 10.
- $20 \times 7 = 140$   
Possible strategy:  
 $20 \times 7$   
 $= 2 \times 10 \times 7$   
 $= 2 \times 70$   
 $= 70 + 70$   
 $= 140$
- $20 \times 14 = 280$   
Possible strategy: doubling a known fact  
Since  $20 \times 7 = 140$   
 $20 \times 14$   
 $= 20 \times 7 \times 2$   
 $= 140 \times 2$   
 $= 140 + 140$   
 $= 280$

6.  $30 \times 5 = 150$   
Possible strategy:  
 $30 \times 5$   
 $= 3 \times 10 \times 5$   
 $= 3 \times 50$   
 $= 150$
7.  $8 \times 50 = 400$   
Possible strategy: halving and doubling  
 $8 \times 50$   
 $= 4 \times 100$   
 $= 400$
8. Double 33 = 66  
Possible strategy:  
 $2 \times 33$   
Since  $2 \times 3 = 6$ , then  $2 \times 33 = 66$
9.  $99 \times 3 = 297$   
Possible strategy:  
 $99 \times 3$   
 $= (100 \times 3) - (1 \times 3)$   
 $= 300 - 3$   
 $= 297$
10. Double 195  
Possible strategy: Repeated addition  
 $2 \times 195$   
 $= 195 + 195$   
 $= 390$

11.  $17 \times 9 = 9 \times 17 = 153$

By knowing the commutative law, students can easily solve this problem.

12.  $13 \times 14 = 182$

Mental computation is often made easier when a known fact is used as a starting point.

Since  $13 \times 13 = 169$

$$13 \times 14$$

$$= 13 \times 13 + 13$$

$$= 169 + 13$$

$$= 182$$

13.  $20 \times 20 = 400$

Possible strategy: knowledge of base ten

Since  $2 \times 2 = 4$ , then  $20 \times 20 = 400$

14.  $50 \times 5 = 250$

Possible strategy:

$$50 \times 5$$

$$= 5 \times 10 \times 5$$

$$= 25 \times 10$$

$$= 250$$

50 is a special number in mental computation and many students will know simple multiples of 50 by heart.

15. How many days in 3 weeks?  
Possible strategy: using table knowledge  
 $3 \times 7 = 21$

How many days in 100 weeks?  
Possible strategy:  
 $7 \times 100 = 700$

How many days in 50 weeks?  
Possible strategy: using a known fact and halving  
Since  $7 \times 100 = 700$ , then  $7 \times 50 = 700 \div 2 = 350$

Students may also solve this question using their knowledge of day and weeks in a year.  
If student know that there are 364 days and 52 weeks in a year, then they may simply subtract 14 from 364.