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UNIT 1

1.1 Whole number arithmetic

HWK 1M
Main Book page 1

- 1 Copy and fill in the empty boxes
 - a $3 \times \square + 6 = 306$
 - b $5 \times \square + 3 = 5003$
 - c $4 \times \square + \square = 49$
 - d $6 \times \square + 5 = 65$
 - e $2 \times \square + \square = 208$
 - f $9 \times \square + 4 \times \square = 9040$
- 2 Write these numbers in words.
 - a 4315
 - b 70000
 - c 32140
 - d 6842300
- 3 Show how you can use the numbers 72, 4000, 200 and 6 to make the number 3866 by adding and subtracting.
- 4
 - a How many three figure numbers can be formed by using the figures 2, 3 and 7 once each?
 - b Write down the largest *even* number from your three figure numbers in part (a).
 - c Find the sum of all your three figure numbers in part (a).
 - d Find the difference between the two lowest *odd* three figure numbers in part (a).
- 5 Copy and complete
 - a $482186 + \square = 492186$
 - b $73296 - \square = 72296$
- 6 Colin wins £8104653 on the National Lottery. Write this number in words.
- 7 Find four numbers $\square a$, $\square b$, $\square c$ and $\square d$ for which

$$6 \times \square a + 3 \times \square b + 4 \times \square c + 9 \times \square d = 63049$$

HWK 2M
Main Book page 3

Work out

- 1 $718 - 493$
- 2 $4180 - 745$
- 3 $132 + 168 - 175$

- 4 Add each pair of numbers and write each answer in the box below.

a

309	217	496	718
526			

b

2318	643	82	728	4315

5 Copy and complete these multiplication squares.

a

×			6		
				36	
		18			
		42			
			45	10	
	72	27			

b

×					
			36	45	
		21		15	
		56			64
	24				
	42	49			

6 Work out

a 48×7

b 516×8

c 187×6

7 Carly has 1200 newsletters to deliver. When she returns home she has 304 newsletters left. How many newsletters has she actually delivered?

HWK 2E

Main Book page 4

Copy and complete the cross number puzzle.

1		2		3	4
				5	
6			7		
		8			9
10	11		12		
13					

Clues across

1. $139 + 324 - 217$
3. $3 \times 3 \times 3$
5. $123 - 64$
6. $32654 + 21897 + 30185$
8. $71 - 42$
10. A quarter of 272
12. $56 \times 9 + 130$
13. $2653 + 4186 - 1099$

Clues down

1. 38×6
2. $8520 - 2148$
3. $4 \times 4 \times 4 \times 4$
4. Half of 158
7. $(539 \times 7) + 187$
9. 27×9
10. $418 - 353$
11. $3218 - 3131$

HWK 3M

Main Book page 4

- 1 A man does not eat for one week. How many hours is that?
- 2 How many 1p coins are in £2700?
- 3 What belongs in each empty box?
 a $671 - \square = 485$ b $\square \times 8 = 184$ c $\square - 350 = 479$
 d $3000 \div \square = 60$ e $638 + \square = 1226$ f $\square \div 6 = 32$
- 4 I am a two digit number. The difference between my digits is 1. The product of my digits is 20. Which two numbers might I be?
- 5 Charlie exercises for 150 minutes each time he does a session. How many hours of exercise has he done when he has completed 30 sessions?
- 6 The numbers 5, 7 and 8 can make 43 because $8 + 5 \times 7 = 43$.
 Fill in the boxes with either +, -, \times or \div below.
 a $3 \square 8 \square 6 = 51$ b $5 \square 2 \square 9 = 1$
 c $4 \square 6 \square 5 \square 8 = 21$ d $9 \square 3 \square 4 \square 7 = 0$
- 7 2008 was a leap year. How many hours were there in February?
- 8 If $234 \times 103 = 24102$, work out 236×103 without multiplying.
- 9 Cans of coke at 53p each are put in packs of 10. Ten packs are put in a box. One hundred boxes are put in a container. Find the cost of 100 containers.
- 10 Find three numbers which multiply together to give 288 and which add up to 21.
 $\square \times \square \times \square = 288$ $\square + \square + \square = 21$

HWK 4M

Main Book page 6

Find the outputs from these number machines.

- 1 $6 \rightarrow \boxed{\times 0} \rightarrow \blacktriangle$
- 2 $12 \rightarrow \boxed{\times 3} \rightarrow \boxed{\div 9} \rightarrow \blacktriangledown$
- 3 $9 \rightarrow \boxed{\times 7} \rightarrow \boxed{+ 18} \rightarrow \text{☺}$
- 4 $15 \rightarrow \boxed{+ 36} \rightarrow \boxed{\div 3} \rightarrow \blacksquare$
- 5 $13 \rightarrow \boxed{+ 43} \rightarrow \boxed{\div 21} \rightarrow ?$
- 6 $7 \rightarrow \boxed{\times 8} \rightarrow \boxed{- 24} \rightarrow \text{🐟}$
- 7 $36 \rightarrow \boxed{\div 3} \rightarrow \boxed{+ 64} \rightarrow \star$
- 8 $19 \rightarrow \boxed{+ 47} \rightarrow \boxed{\times 0} \rightarrow \$$
- 9 $8 \rightarrow \boxed{\times 11} \rightarrow \boxed{\div 4} \rightarrow \text{🐟}$
- 10 $54 \rightarrow \boxed{- 39} \rightarrow \boxed{\div 5} \rightarrow ?$

- 11 $3 \rightarrow \boxed{\times 8} \rightarrow \boxed{-15} \rightarrow \boxed{\times 6} \rightarrow \boxed{+46} \rightarrow \blacksquare$
- 12 $20 \rightarrow \boxed{\times 10} \rightarrow \boxed{-113} \rightarrow \boxed{+3} \rightarrow \boxed{\div 30} \rightarrow \boxed{\times 9} \rightarrow \$$
- 13 $60 \rightarrow \boxed{\div 4} \rightarrow \boxed{+17} \rightarrow \boxed{\times 5} \rightarrow \boxed{\times 2} \rightarrow \boxed{\div 10} \rightarrow \text{☺}$
- 14 $18 \rightarrow \boxed{\times 2} \rightarrow \boxed{+9} \rightarrow \boxed{\div 5} \rightarrow \boxed{\times 40} \rightarrow \boxed{+40} \rightarrow \boxed{\div 50} \rightarrow \uparrow$
- 15 $25 \rightarrow \boxed{+19} \rightarrow \boxed{-13} \rightarrow \boxed{\times 0} \rightarrow \boxed{\times 6} \rightarrow \boxed{+29} \rightarrow \boxed{\times 3} \rightarrow \boxed{+13} \rightarrow \blacktriangle$

HWK 4E**Main Book page 6**

Find the inputs to these number machines.

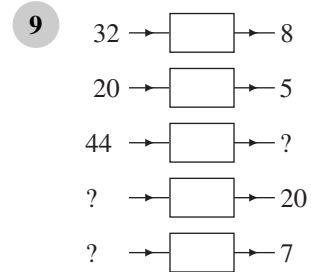
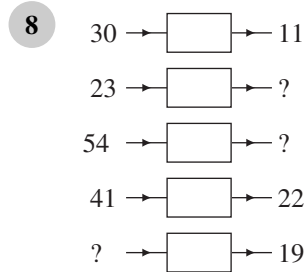
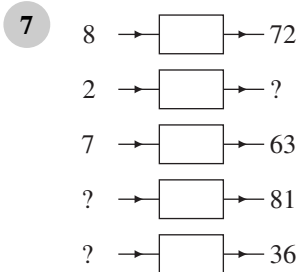
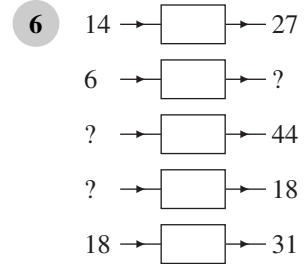
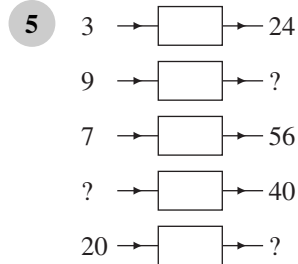
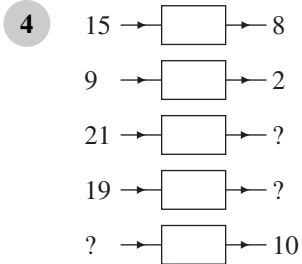
- 1 $\star \rightarrow \boxed{\times 7} \rightarrow 21$
- 2 $\blacktriangle \rightarrow \boxed{\div 3} \rightarrow 13$
- 3 $\blacksquare \rightarrow \boxed{+21} \rightarrow \boxed{-13} \rightarrow 16$
- 4 $\uparrow \rightarrow \boxed{+13} \rightarrow \boxed{\times 4} \rightarrow 80$
- 5 $\text{☺} \rightarrow \boxed{+6} \rightarrow \boxed{\times 7} \rightarrow 77$
- 6 $? \rightarrow \boxed{+41} \rightarrow \boxed{\div 8} \rightarrow 7$
- 7 $\blacktriangle \rightarrow \boxed{-3} \rightarrow \boxed{\times 9} \rightarrow 72$
- 8 $\bullet \rightarrow \boxed{-5} \rightarrow \boxed{\times 12} \rightarrow 36$
- 9 $\text{🐟} \rightarrow \boxed{\times 2} \rightarrow \boxed{\div 8} \rightarrow 5$
- 10 $\$ \rightarrow \boxed{\div 4} \rightarrow \boxed{\div 3} \rightarrow 7$
- 11 $\blacksquare \rightarrow \boxed{+70} \rightarrow \boxed{\div 4} \rightarrow 20$
- 12 $\text{☺} \rightarrow \boxed{\div 8} \rightarrow \boxed{\times 30} \rightarrow 60$
- 13 $? \rightarrow \boxed{\times 35} \rightarrow \boxed{-40} \rightarrow 65$
- 14 $\bullet \rightarrow \boxed{\div 5} \rightarrow \boxed{\times 15} \rightarrow 75$
- 15 $\uparrow \rightarrow \boxed{\div 20} \rightarrow \boxed{+39} \rightarrow 44$
- 16 $\text{🐟} \rightarrow \boxed{\div 3} \rightarrow \boxed{\times 8} \rightarrow 200$
- 17 $\blacksquare \rightarrow \boxed{\times 8} \rightarrow \boxed{+68} \rightarrow 100$
- 18 $\blacktriangledown \rightarrow \boxed{-109} \rightarrow \boxed{+32} \rightarrow 223$
- 19 $\blacktriangle \rightarrow \boxed{\times 9} \rightarrow \boxed{-57} \rightarrow 24$
- 20 $\$ \rightarrow \boxed{+63} \rightarrow \boxed{\div 2} \rightarrow 39$

HWK 5M**Main Book page 7**

What operation is taking place in each of these machines?

- 1 $15 \rightarrow \boxed{?} \rightarrow 12$
- 2 $7 \rightarrow \boxed{?} \rightarrow 42$
- 3 $28 \rightarrow \boxed{?} \rightarrow 14$
- $14 \rightarrow \boxed{?} \rightarrow 11$
- $4 \rightarrow \boxed{?} \rightarrow 24$
- $12 \rightarrow \boxed{?} \rightarrow 6$
- $13 \rightarrow \boxed{?} \rightarrow 10$
- $9 \rightarrow \boxed{?} \rightarrow 54$
- $32 \rightarrow \boxed{?} \rightarrow 16$

For questions 4 to 9 copy and complete the number machines after working out the operation for each.


HWK 5E
Main Book page 8

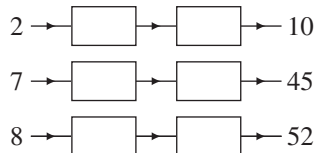
- 1 Find the two operations which give *both* the results shown.



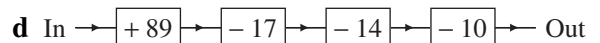
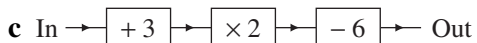
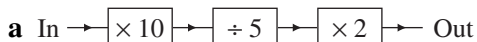
- 2 Find the two operations which give *both* the results shown.



- 3 Find the two operations which give *all* three results shown below.



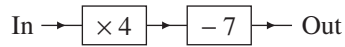
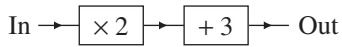
- 4 For each chart find the *single* operation which performs the same operation as those shown.



- 5 Find the input number which gives the same output number for *both* charts below.



- 6 Find the input number which gives the same output number for *both* charts below.


HWK 6M
Main Book page 9

- 1 Copy and complete.

a $49 \div \square = 7$

b $36 \div \square = 12$

c $\square \div 4 = 7$

d $\square \div 9 = 2$

e $400 \div \square = 40$

f $\square \div 5 = 20$

g $\square \div 8 = 9$

h $63 \div \square = 9$

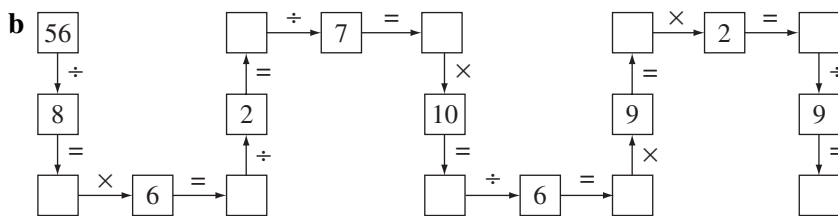
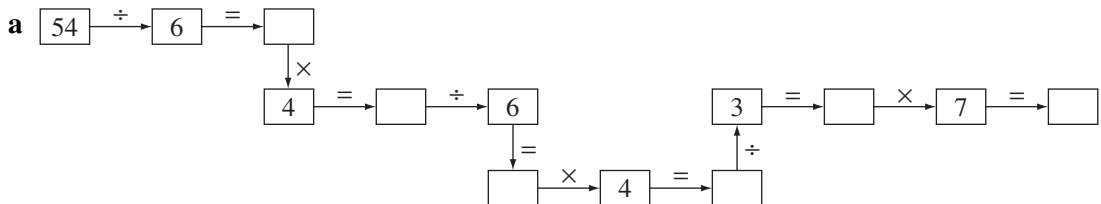
i $\square \div 6 = 8$

j $300 \div \square = 5$

k $90 \div \square = 9$

l $\square \div 10 = 11$

- 2 Copy and complete these number chains.



- 3 Copy and complete:

a $(6 + \square) \div 3 = 5$

b $(23 + \square) \div 8 = 6$

c $(67 - \square) \div 5 = 7$

d $(81 - \square) \div 7 = 8$

e $(27 + \square) \div 8 = 10$

f $(116 - \square) \div 6 = 9$

- 4 What number, when multiplied by 9 and then divided by 3, gives an answer of 6?

- 5 What number, when divided by 8 and then multiplied by 7, gives 56?

- 6 What number, when divided by 6 and then multiplied by 11, gives 99?