MULTIPLY INTEGERS

BUILDING BLOCKS

NAME _____ CLASS _____ DATE _____

KEY IDEA

Split the bigger number into tens and ones.

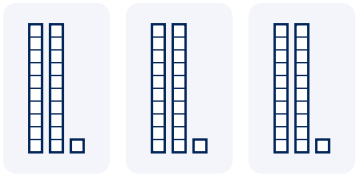
Multiply each part, then add.

23 × 4 = 80 + 12 = 92

×	20	3
4	80	12
	20 × 4	3 × 4

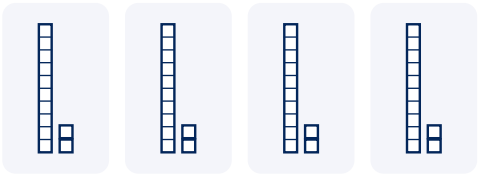
1 Each group shows a number in base ten. Complete each multiplication.

a)



3 × 21 = ☐

b)



4 × 12 = ☐

2 Complete each grid. Then add the parts to find the answer.

a)

×	30	2
3		

32 × 3 = ☐

b)

×	40	7
5		

47 × 5 = ☐

c)

×	60	7
4		

67 × 4 = ☐

3 Complete the column multiplications. Start with the ones.

a)

	H	T	O
		4	3
×			2
	☐	☐	☐

b)

	H	T	O
		3	6
×			4
	☐	☐	☐

c)

	H	T	O
		2	9
×			6
	☐	☐	☐

4 A pack has 8 pens.



... 34 packs

How many pens are there in 34 packs? ☐

MULTIPLY INTEGERS

SUPPORT

NAME _____ CLASS _____ DATE _____

KEY IDEA

Grid method: split both numbers into tens and ones.

Multiply every pair of parts, then add all four answers.

34 × 26 = 600 + 80 + 180 + 24 = 884

×	30	4
20	600	80
6	180	24

1 Complete each grid. Then find the answer.

a)

×	20	4
10		
3		

24 × 13 = ☐

b)

×	40	5
30		
2		

45 × 32 = ☐

c)

×	100	30	6
7			

136 × 7 = ☐

2 Complete the column multiplications.

a)

Th	H	T	O
	3	2	4
×			3
	☐	☐	☐ ☐

b)

Th	H	T	O
	5	1	7
×			6
	☐	☐	☐ ☐

c)

Th	H	T	O
2	1	0	8
×			4
	☐	☐	☐ ☐

3 Round each number to the nearest 10 to estimate. Then work out the exact answer.

a) 39 × 21 ≈ ☐ × ☐ = ☐ Exact: ☐

b) 52 × 18 ≈ ☐ × ☐ = ☐ Exact: ☐

4 Ben uses a grid to work out 24 × 3. He gets 67.

×	20	4
3	60	7

60 + 7 = 67

Ben's working

a) Which box in Ben's grid is wrong? Why?

.....

b) What is 24 × 3? ☐

MULTIPLY INTEGERS

CORE

NAME _____ CLASS _____ DATE _____

KEY IDEA

Estimate first, e.g. $63 \times 47 \approx 60 \times 50 = 3000$. Use the column method or the grid method, remembering the placeholder 0 when you multiply by the tens digit. Look for quicker methods: $499 \times 6 = 500 \times 6 - 6$, and $25 \times 4 = 100$.

FLUENCY

1 Work out each calculation using a written method.

a) **274 × 8** ☐

b) **563 × 7** ☐

c) **3186 × 4** ☐

d) **4057 × 6** ☐

2 Use an efficient method to work out each calculation.

a) **499 × 6** ☐

b) **201 × 8** ☐

c) **25 × 36** ☐

d) **4 × 37 × 25** ☐

REASONING

3 $47 \times 36 = 1692$. Use this fact to work out each calculation.

a) **47 × 37** ☐

b) **48 × 36** ☐

c) **470 × 36** ☐

d) **47 × 18** ☐

4 Amira says, "$52 \times 18 = 52 \times 20 - 52 \times 2$". Is she right? Explain, then work out 52×18.

MULTIPLY INTEGERS

GREATER DEPTH

NAME _____ CLASS _____ DATE _____

REASONING

1 Is each statement always, sometimes or never true? Circle your answer.

The numbers are positive whole numbers. Give an example to support each answer.

a) 2-digit × 2-digit gives a 4-digit number. ALWAYS SOMETIMES NEVER

b) odd × odd gives an odd number. ALWAYS SOMETIMES NEVER

c) A product is greater than both numbers. ALWAYS SOMETIMES NEVER

PROBLEM SOLVING

2 Use each digit card once to make a 2-digit × 2-digit multiplication.

3	4	6	8

a) ☐☐ × ☐☐ = ☐☐☐☐ (greatest product)

b) ☐☐ × ☐☐ = ☐☐☐☐ (smallest product)

3 A theatre has 36 rows of 28 seats. Each ticket costs £14.

a) How many seats are there? ☐☐☐

b) Every seat is sold. How much money is taken? ☐☐☐

★ CHALLENGE FOR ALL

4 Consecutive numbers come one after another, like 6 and 7.

a) Two consecutive whole numbers multiply to make 1482. What are they? ☐☐☐

b) Three consecutive whole numbers multiply to make 2730. What are they?

☐☐ ☐☐ ☐☐

MULTIPLY INTEGERS

ANSWERS

BUILDING BLOCKS

1 a) 63 · b) 48
2 a) 90 + 6 = 96 · b) 200 + 35 = 235 · c) 240 + 28 = 268
3 a) 86 · b) 144 · c) 174
4 272 pens

SUPPORT

1 a) 200 + 40 + 60 + 12 = 312 · b) 1200 + 150 + 80 + 10 = 1440 · c) 700 + 210 + 42 = 952
2 a) 972 · b) 3102 · c) 8432
3 a) 40 × 20 = 800; exact 819 · b) 50 × 20 = 1000; exact 936
4 a) The 7: he added 4 + 3 instead of multiplying. 4 × 3 = 12. b) 72

CORE

1 a) 2192 · b) 3941 · c) 12 744 · d) 24 342
2 a) 2994 · b) 1608 · c) 900 · d) 3700
3 a) 1739 · b) 1728 · c) 16 920 · d) 846
4 Yes. 18 is 2 less than 20, so subtract two lots of 52: 1040 − 104 = 936

GREATER DEPTH

1 a) Sometimes (12 × 34 = 408, but 50 × 40 = 2000) · b) Always · c) Sometimes (not when one number is 1, e.g. 1 × 7 = 7)
2 a) 83 × 64 = 5312 · b) 36 × 48 = 1728
3 a) 1008 seats · b) £14 112
4 a) 38 and 39 · b) 13, 14 and 15