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### Calculating Area Using Arrays and Multiplication

I can calculate the area of rectilinear shapes using arrays and multiplication.



1. Draw arrays to calculate the area of these shapes. The first one has been done for you.

a)

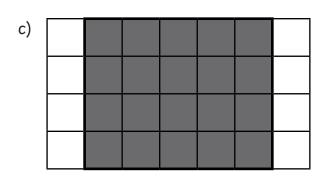
2 rows of 5
2 × 5 = 10

area = 10 squares

b)				

rows of

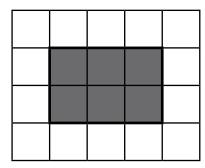
x = squares



x	rows of	
area =		squares

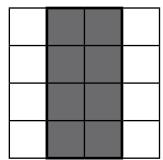
2. Use multiplication to calculate the area of these shapes. The first one has been done for you.

a)



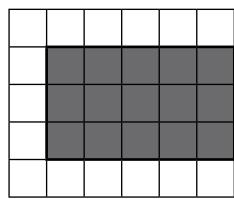
×	=	

area = squares b)





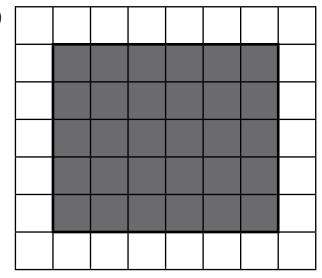
area = squares c)





area = squares

d)

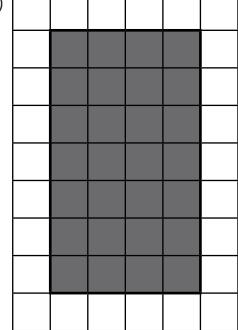


×	=

area =

squares

e)



×	
••	

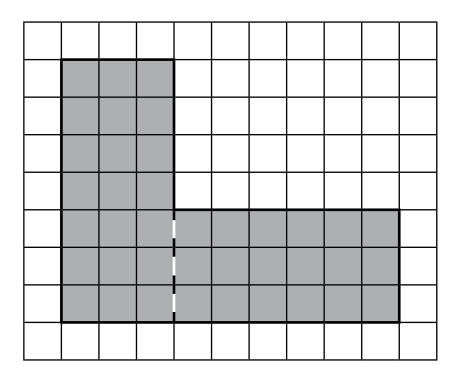


area =

squar
squar



3. Calculate the area of this shape. It has been divided into two rectangles to help you. Show how you worked out the area.



Show your working out:
area of whole shape =

1. Draw arrays to calculate the area of these shapes. The first one has been done for you.



3 rows of 4

$$3 \times 4 = 12$$

area = 12 squares



 $4 \times 5 = 20$ 

area = 20 squares

2. Use multiplication to calculate the area of these shapes. The first one has been done for you.

c) 
$$5 \times 3 = 15$$
  
area = 15 squares

d) 
$$6 \times 5 = 30$$
  
area = 30 squares

3. Calculate the area of this shape. It has been divided into two rectangles to help you. Show how you worked out the area.

area = 39 squares

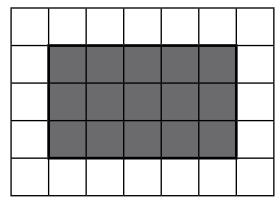
Working out shows that the area of the 2 rectangles = 21 squares and 18 squares.

I can calculate the area of rectilinear shapes using arrays and multiplication.



1. Draw arrays to calculate the area of these shapes. The first one has been done for you.

a)



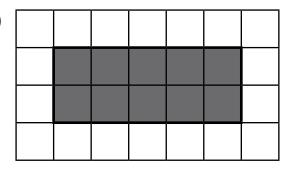
•••••

3 rows of 6

 $3 \times 6 = 18$ 

area = 18 squares

b)

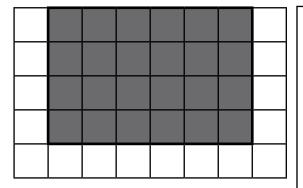


rows of

x =

area = squares

c)



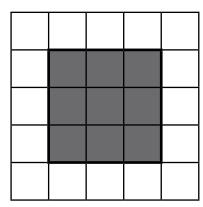
rows of

x =

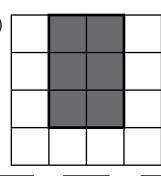
area = squares

2. Use multiplication to calculate the area of these shapes. The first one has been done for you.

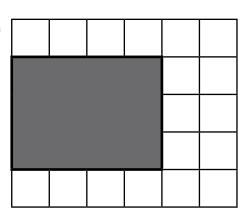
a)



b)



c)



area =

×		
---	--	--

squares

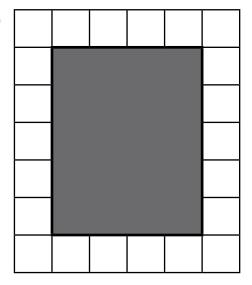
area =		square
--------	--	--------

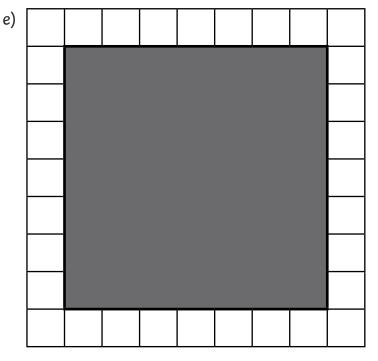
,	_	
٠	_	

area =

squares
, v

d)





×	=	

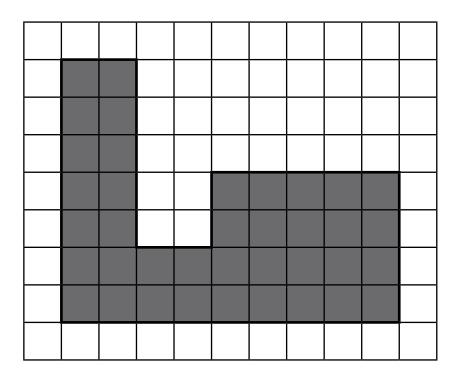
area =

	_	

area =



3. Calculate the area of this shape. Divide the shape into smaller rectangles to help you. Show how you worked out the area.



Show your working out:
area of whole shape =

#### Accept multiplication calculations written either way round.

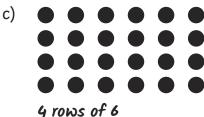
1. Draw arrays to calculate the area of these shapes. The first one has been done for you.



2 rows of 5

 $2 \times 5 = 10$ 

area = 10 squares



 $4 \times 6 = 24$ 

area = 24 squares

2. Use multiplication to calculate the area of these shapes. The first one has been done for you.

b) 
$$2 \times 3 = 6$$
  
area = 6 squares

c) 
$$4 \times 3 = 12$$
  
area = 12 squares

d) 
$$4 \times 5 = 20$$
 area = 20 squares

3. Calculate the area of this shape. Divide the shape into smaller rectangles to help you. Show how you worked out the area.

area = 38 squares

Working out shows that the shape has been divided into smaller rectangles and each has had the area calculated.

I can calculate the area of rectilinear shapes using arrays and multiplication.



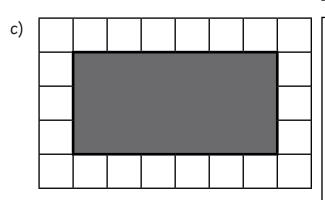
1. Draw arrays to calculate the area of these shapes. The first one has been done for you.

a)

b)

rows of

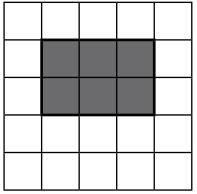
x = squares



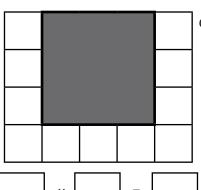
		rows of		
	×		=	
area =				squares

2. Use multiplication to calculate the area of these shapes. The first one has been done for you.

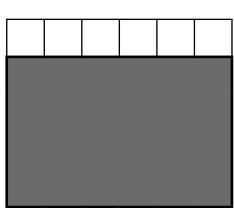
a)



b)



c)



×	:
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= |

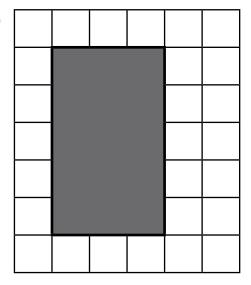
area	=	square
a.ca		oqua. c

area = squares

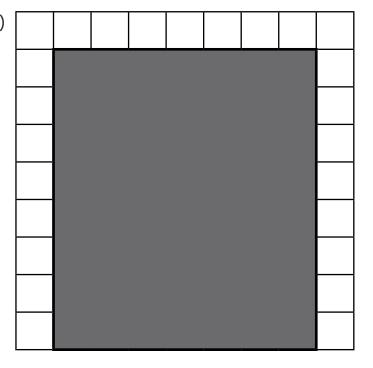
	l
area =	l

squares

d)



e)



, [\_\_\_\_

=

area =

squares

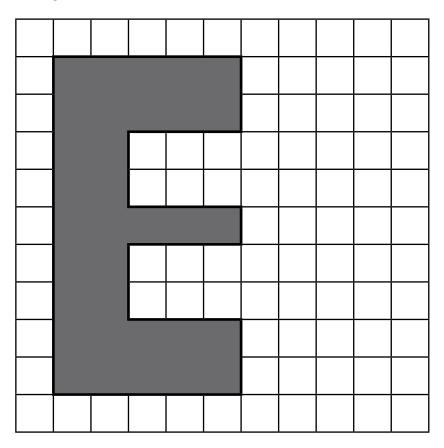
=

area =

squares



3. Calculate the area of this shape. Divide the shape into smaller rectangles to help you. Show how you worked out the area.



Show your working out:	
	area of whole shape =

1. Draw arrays to calculate the area of these shapes. The first one has been done for you.



$$4 \times 5 = 20$$



2. Use multiplication to calculate the area of these shapes. The first one has been done for you.

b) 
$$3 \times 3 = 9$$
  
area = 9 squares

d) 
$$3 \times 5 = 15$$
  
area = 15 squares

3. Calculate the area of this shape. Divide the shape into smaller rectangles to help you. Show how you worked out the area.

Working out shows that the shape has been divided into smaller rectangles and each has had the area calculated.