

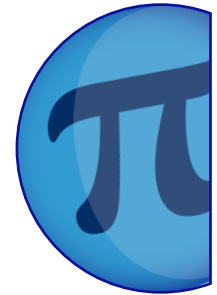


# Modelling the Spitfire

NAME: .....

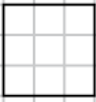
CLASS: .....


DATE: .....

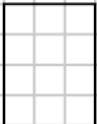


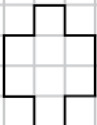
## Basic

1) Enlarge each of the shapes below using a scale factor of 2.

a) 

c) 

b) 

d) 

2) Using the above shapes fill in the table below.

Shape	Original Area	Enlargement Area	Enlargement Area
			Original Area
a			
b			
c			
d			

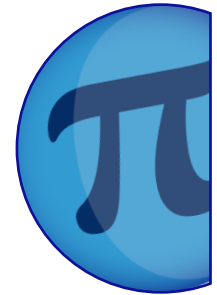


# Modelling the Spitfire

NAME: .....


CLASS: .....


DATE: .....

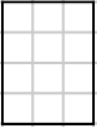


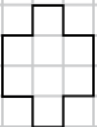
## Core

1) Enlarge each of the shapes below using a scale factor of 2.

a) 

c) 

b) 

d) 

2) Using the above shapes fill in the table below.

Shape	Original Area	Enlargement Area	Enlargement Area
			Original Area
a			
b			
c			
d			



# Modelling the Spitfire

## Core

3) Assume that each of the above shapes is the front face of a prism 10cm long. Calculate the volume if each prism is enlarged by a scale factor of 2, and fill in the table below.

Shape	Original Volume	Enlargement Volume	Enlargement Volume
			Original Volume
a			
b			
c			
d			

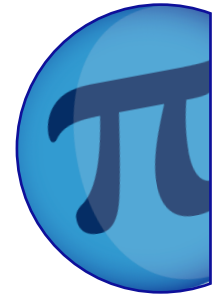


# Modelling the Spitfire

NAME: .....


CLASS: .....


DATE: .....

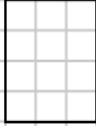


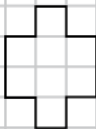
## Advanced

1) Enlarge each of the shapes below using a scale factor of 2.

a) 

c) 

b) 

d) 

2) Assume that each of the above shapes is the front face of a prism 10cm long. Calculate the volume if each prism is enlarged by a scale factor of 2, and fill in the table below.

Shape	Original Volume	Enlargement Volume	Enlargement Volume
			Original Volume
a			
b			
c			
d			



# Modelling the Spitfire

## Advanced

3) A square of area  $40\text{cm}^2$  is enlarged to a square of  $160\text{cm}^2$ . What is the scale factor of enlargement?

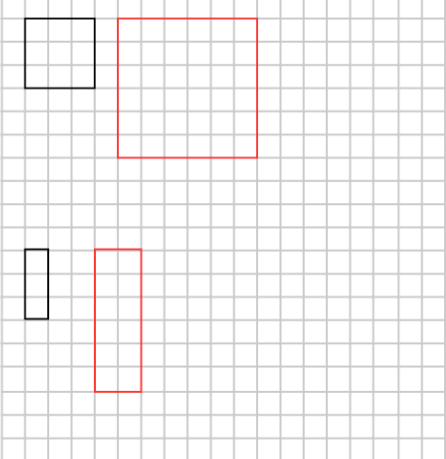
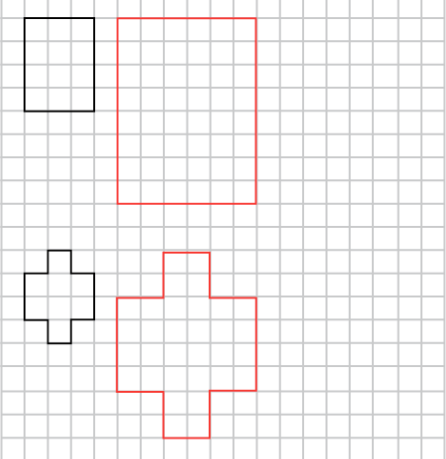
4) A cuboid has a volume of  $540\text{cm}^3$ . The lengths of the sides of the cuboid increase by a scale factor of 5. What is the volume of the enlarged cuboid?


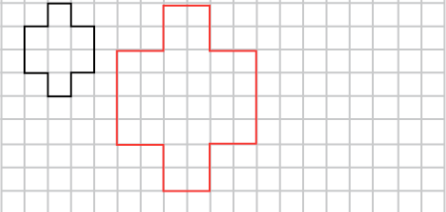


# Modelling the Spitfire

## ANSWERS

### Basic

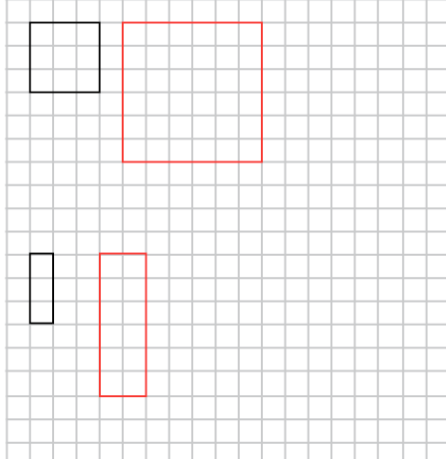
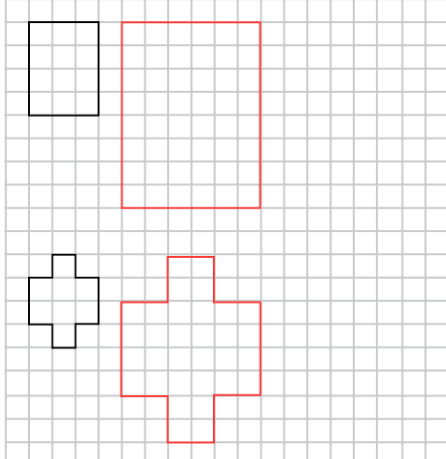
1) a)  b) 


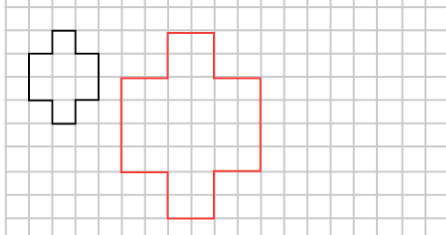
c)  d) 

2)

Shape	Original Area	Enlargement Area	Enlargement Area
			Original Area
a	9	36	4
b	3	12	4
c	12	48	4
d	8	32	4

### Core

1) a)  b) 

c)  d) 



# Modelling the Spitfire

## ANSWERS

### Core

2)

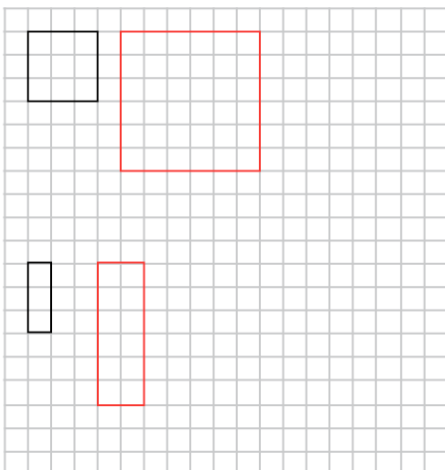
Shape	Original Area	Enlargement Area	Enlargement Area
			Original Area
a	9	36	4
b	3	12	4
c	12	48	4
d	8	32	4

3)

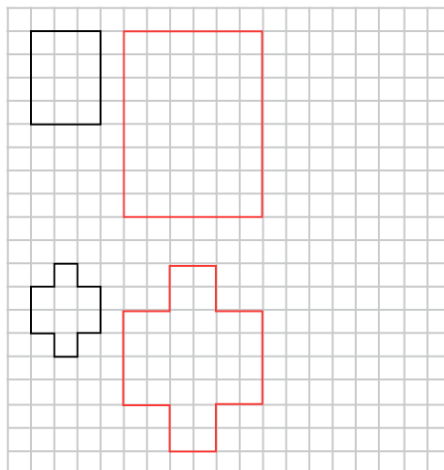
Shape	Original Volume	Enlargement Volume	Enlargement Volume
			Original Volume
a	90	720	8
b	30	240	8
c	120	960	8
d	80	640	8

### Advanced

1) a)



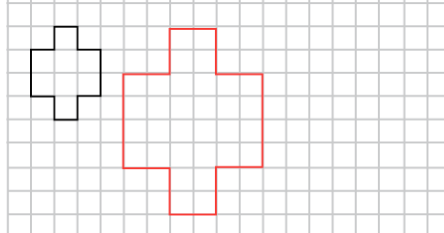
b)



c)



d)





# Modelling the Spitfire

## ANSWERS

### Advanced

2)

Shape	Original Volume	Enlargement Volume	Enlargement Volume
			Original Volume
a	90	720	8
b	30	240	8
c	120	960	8
d	80	640	8

3) 2

4)  $67,500\text{cm}^3$