

# Paper 3 MIB

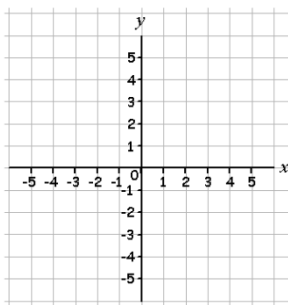
- Watch video on Paper (using QR code)
  - Watch the video on website if still unsure, answering questions at end of video
  - Answer these questions
- This is the best way to revise!**

Topic	Question	Video
Drawing Straight Lines	7b	A24
Direct Proportion	15b	R26-28
Pythagoras	23a	G43
Pythagoras Problem Solve	23b	G44
$y = mx + c$	24	A25-27
Similar Shapes	25	G49-50
Error Intervals	26a	N52

Total of 18 marks on one paper

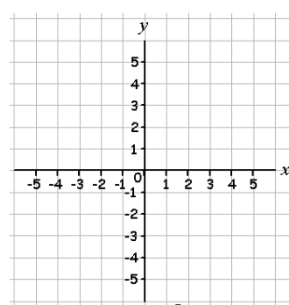
## Question 7b

Draw the lines that are beneath the graphs...



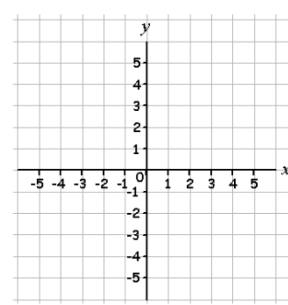
$x = 4$

x y  
 ( , )  
 ( , )  
 ( , )  
 ( , )  
 ( , )



$y = 2$

x y  
 ( , )  
 ( , )  
 ( , )  
 ( , )  
 ( , )



$y = x$

x y  
 ( , )  
 ( , )  
 ( , )  
 ( , )  
 ( , )

Question 15b

A and B are in direct proportion, fill in the blanks.

a	8	48	
b	6		120

a	6	36	
b	1.5		45

a	2	9	
b	5		32.5

a	12	48	
b	7.2		50.4

y is directly proportional to x.  
Complete the table.

x	4	9	12
y			72

y is directly proportional to x.  
Complete the table.

x	2.5	8	
y	4		50

A and B are in direct proportion.

When  $a = 25$   $b = 10$

a) Find  $b$  when  $a = 100$

b) Find  $a$  when  $b = 100$

A and B are in direct proportion.

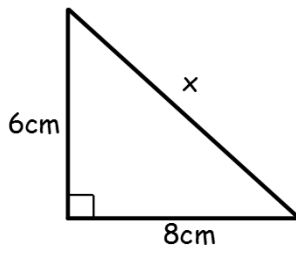
When  $a = 12$   $b = 8$

a) Find  $b$  when  $a = 50$

b) Find  $a$  when  $b = 12$

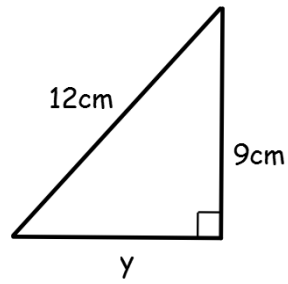
Question 23a

a)



Show that x is 10cm.

b)

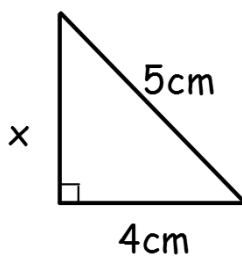


Show that y is 7.94cm when rounded to 2.d.p.

Question 23b

Work out the missing length and then use it to find the area and perimeter of the triangles

a)

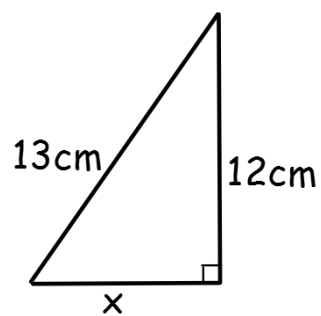


$x = \underline{\hspace{2cm}}$

Area =  $\underline{\hspace{2cm}}$

Perimeter =  $\underline{\hspace{2cm}}$

b)



$x = \underline{\hspace{2cm}}$

Area =  $\underline{\hspace{2cm}}$

Perimeter =  $\underline{\hspace{2cm}}$

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Question 24

Find the equation of a line that....

(a) has a gradient of 4 and passes through the point (1, 10)

(b) has a gradient of 2 and passes through the point (-3, 3)

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(c) has a gradient of 1 and passes through the point (5, 2)

(d) has a gradient of -3 and passes through the point (-2, 8)

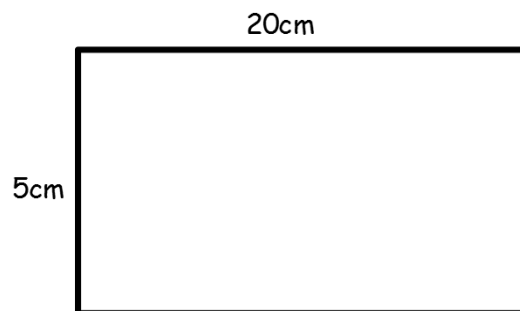
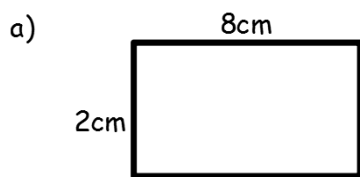
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(e) has a gradient of  $-5$  and passes through the point  $(3, -1)$

(f) has a gradient of  $\frac{1}{2}$  and passes through the point  $(4, 5)$

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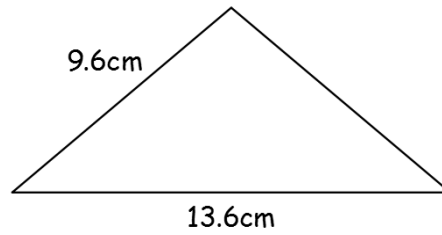
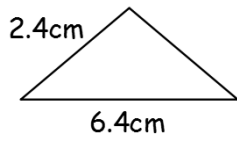
Question 25



Are these rectangles similar? \_\_\_\_\_

Why?

b)



Are these triangles similar? \_\_\_\_\_

Why?

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### Question 26a

Question 1: The mass of a coin is 8 grams to the nearest gram.  
Complete the error interval for the mass of the coin

..... g  $\leq$  mass < ..... g

Question 2: The distance between two cities is 900km to the nearest 100km.  
Complete the error interval for the distance

..... km  $\leq$  distance < ..... km

Question 3: Frank rounds a number,  $y$ , to the nearest ten.  
His result is 20  
Write down the error interval for  $y$

Question 4: Lily rounds a number,  $y$ , to the nearest whole number.  
Her result is 5  
Write down the error interval for  $y$

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- Question 5: Freya rounds a number,  $y$ , to one decimal place.  
Her result is 6.4  
Write down the error interval for  $y$
- Question 6: Oscar rounds a number,  $y$ , to the nearest integer.  
His result is 100  
Write down the error interval for  $y$
- Question 7: A number,  $n$ , is rounded to 1 decimal place.  
The result is 1.3  
Using inequalities, write down the error interval for  $n$ .
- Question 8: A number,  $n$ , is rounded to 2 decimal places.  
The result is 6.27  
Using inequalities, write down the error interval for  $n$ .
- Question 9: Elliott weighs 56.2kg.  
This mass,  $m$ , is to the nearest 100g.  
Write the error interval due to rounding.