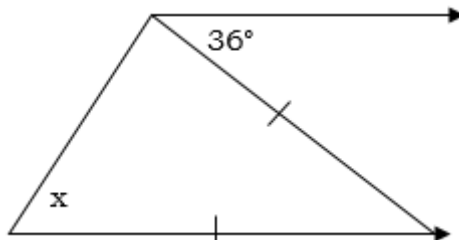


**HIGHER TIER  
MINI PRACTICE EXAM 12**

**NON-CALCULATOR  
20 MINUTES ALLOWED**

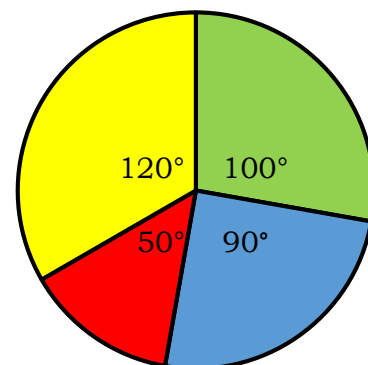
1.  
Find  $x$ . Give reasons for your answer.



2.  
Jasmine has a biased spinner with four sections, pictured to the right.

- (a) Work out the probability that the spinner lands on blue.  
Give your answer as a decimal.

(2)



- (b) Jasmine is going to use the spinner at a fair.  
Each player will pay £1 to spin.  
If the spinner lands on red, the player wins £5.  
If the spinner lands on green, the player wins their £1 back.  
If the spinner lands on any other section, the player wins nothing.

900 people are going to play the game.  
Do you expect Jasmine to make a profit or a loss?

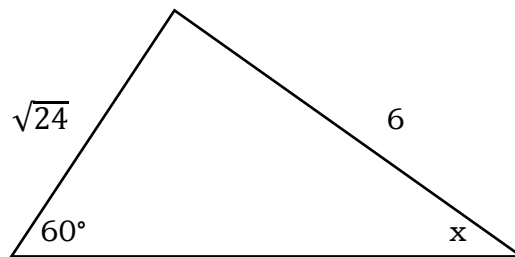
(4)

3.

Solve  $\frac{3}{x-2} = \frac{2(2x+1)}{3x}$

4.

Find x.



(5)

(6)