A screenshot of a cell phone

Description automatically generated

**Foundation Tier**

**Circles – Label**

**Instructions**

* Use **black** ink or ball-point pen.
  + **Fill in the boxes** at the top of this page with your name,  
    centre number and candidate number.
* Answer **all** questions.
* Answer the questions in the spaces provided  
  *– there may be more space than you need.*
* You must **show all your working.**
* Diagrams are **NOT** accurately drawn, unless otherwise indicated.
* If your calculator does not have a *π* button, take the value of *π* to be3.142

unless the question instructs otherwise.

**Information**

* The total mark for this paper is **7**. There are **4** questions.
* Questions have been arranged in an ascending order of mean difficulty, as found by all students in the June 2017–November 2019 examinations.
* The marks for **each** question are shown in brackets  
  *– use this as a guide as to how much time to spend on each question.*

**Advice**

* Read each question carefully before you start to answer it.
* Keep an eye on the time.
* Try to answer every question.
* Check your answers if you have time at the end.

**1**



(*a*)On the diagram above, draw a diameter of the circle.

**(1)**

(*b*)On the diagram below, draw a segment of the circle.

Shade the segment.



**(1)**

**(Total for Question 1 is 2 marks)**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**2** The centre of this circle is marked with a cross (×).



(*a*)Write down the mathematical name of the straight line shown in the circle.

........................................................

(**1**)

(*b*)Write down the mathematical name of the straight line that is touching the circle.



.......................................................

(**1**)

(**Total for Question 2 is 2 marks**)

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**3** Draw a chord of this circle.



**(Total for Question 3 is 1 mark)**

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**4** Here are four circles and four straight lines.

Each circle has its centre marked with a cross (X).

Draw an arrow from each straight line to its mathematical name.

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Radius

Chord

Tangent

Diameter

**(Total for Question 4 is 2 marks)**

**TOTAL MARKS FOR PAPER: 7**