Name:	Date:
Question 1:  A car decreases in value by 6% p.a. The car cost £7000. How much will it be worth in 3 years time? 	APP 1·3a Bronze Outcome 3
Question 2: Factorise the following expression; $r^2 - 3r - 28$	E+F 1·2b Silver Outcome 3
Question 3: Change the subject of the formula to c. $g = \sqrt{\frac{15}{c}}$	REL 1·1e Gold Outcome 1
Question 4: Find the equation of the line joining the points (3, 1) and (5, 11). Give the equation in it's simplest form.	REL 1·1a Silver Outcome 2
Question 5: Solve the following equation; $\frac{4x-1}{3} = \frac{1}{5}$	REL 1·1c Gold Outcome 1
My score:	

Exam Questions

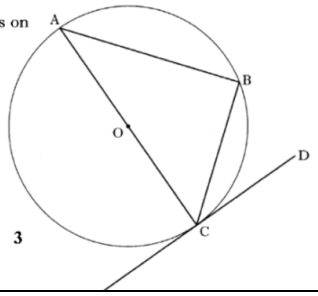
Question 1:

REL 1·4b Gold Outcome 1

- A, B and C are points on the circumference of a circle, centre O.
- CD is a tangent to the circle.
- Angle BCD = 25°.

Calculate the size of angle BAC.

Show all working. 3



Question 2:

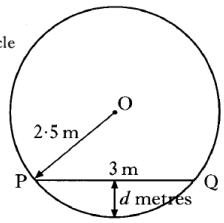
REL 1·4a Gold Outcome 1

The diagram below shows a circular cross-section of a cylindrical oil tank.

In the figure below,

- O represents the centre of the circle
- PQ represents the surface of the oil in the tank
- PQ is 3 metres
- the radius OP is 2·5 metres.

Find the depth, d metres, of oil in the tank. 4



Question 3:

REL 1·1d Gold Outcome 1

Suzie has a new mobile phone. She is charged x pence per minute for calls and y pence for each text she sends. During the first month her calls last a total of 280 minutes and she sends 70 texts. Her bill is £52·50.

(a) Write down an equation in x and y which satisfies the above condition. 1

The next month she reduces her bill. She restricts her calls to 210 minutes and sends 40 texts. Her bill is £38·00.

(b) Write down a second equation in x and y which satisfies this condition. 1

(c) Calculate the price per minute for a call and the price for each text sent. 4

Question 4:

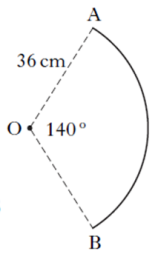
E+F 1·4b Silver Outcome 1

A circle, centre O, has radius 36 centimetres.

Part of this circle is shown.

Angle AOB = 140°.

Calculate the length of arc AB. 3



Question 5:

E+F 1·3 Gold Outcome 2

Express $\frac{2}{x}+\frac{4}{x+3}$, $x \neq 0$, $x \neq -3$, as a single fraction in its simplest form. 3

My score: