Name:

## QUIZ - MATH GRADE 10

1. $(20 \%)$ Given the circle, find all the missing angles. $M$ is the centre of the circle
$\qquad$
$(5 \%) \mathrm{b}=$ $\qquad$
$(5 \%) \mathrm{c}=$ $\qquad$
$(5 \%) \mathrm{d}=$ $\qquad$

2. (30\%) Given that the concentric circles have radii 6 and 10 cm as can be seen in the diagram. O is the centre of the circles.
a. (15\%) Find the area shaded in terms of pi.

3. $(50 \%)$ Given the following diagram. The triangle BAC is equilateral.
$\mathrm{BC}=20 \mathrm{~cm}$. The radius of the circle is $8 \mathrm{~cm} . \mathrm{C}$ is the centre of the circle. Find (give exact answers):
a. (8\%) The length of the major arc DE.
b. $(12 \%)$ The perimeter of the sector DEC.

c. $(10 \%)$ The area of the sector DEC.
d. (10\%) Find the area shaded.
e. ( $10 \%$ ) The perimeter of the shaded area.
