Substitution Into Formulas

Name :	Math 081	Homework #3

1) Find the value of the formula using the numbers given [3]

a) $T = 11(z + a)$ when $a = 2$ and $z = 7$

b) $L = 4(3c + b)$ when $c = -5$ and $b = -6$

c) $T = 4(5y + 3b + 3x)$ when $x = -3,\ y = 5$ and $b = 2$

2) The circumference of a circle can be found using the formula [1]

$$C = 2\pi r \quad or \quad C = \pi d$$

Find the circumference of a circle with radius 8 cm. Leave your answer to one decimal place. (for π use 3.14)

3) The area of the sector of a circle can be found using the formula [1]

$$A = \frac{x}{360} \times \pi r^2$$

Find the area of the sector of a circle with radius 6 cm and (angle) x = 90. Leave your answer to one decimal place.

4) The surface area of a cuboid can be found using the formula $A = 2lh + 2wh + 2lw$. [1]
Find the surface area of a cuboid with length 10 cm, width 7 cm, and height 5 cm.

5) The volume of a cone can be found using the formula $V = \frac{1}{3}\pi r^2 h$. Find the volume of a [1]
cone with radius 6 meters and height 3 meters. Round your answer to nearest whole number.

6) The formula to convert Fahrenheit to Celsius is $C = \frac{5}{9}(F - 32)$. Find the temperature in [1]
Celsius if the Fahrenheit reading is $13^{o}F$. Round your answer to nearest whole number.

7) The compound interest of a bank account can be found using the [1]
formula $A = P(1 + \frac{R}{100})^{n}$. Find the money made (A),
when $P = 152,\ R = 9$ and $n = 7$. Round your answer to two decimal places where necessary.