Name: $\qquad$ Date: $\qquad$

## QUIZ - TRIGONOMETRIC RATIOS

1. $(50 \%)$ Given the following right angled triangle. Given that $\mathrm{AB}=\mathrm{x} . \mathrm{AC}=3 \mathrm{AB}$. find
a. $(5 \%) \operatorname{Sin}(\mathrm{C})=$
b. $(5 \%) \operatorname{Cos}(\mathrm{A})=$
c. $(10 \%) B C$ in terms of $x$.
d. $(10 \%) \operatorname{Sin}(\mathrm{A})=$

e. $(5 \%) \operatorname{Cos}(\mathrm{C})=$
f. $(5 \%) \operatorname{Tan}(\mathrm{A})=$
g. $(5 \%) \operatorname{Tan}(\mathrm{C})=$
h. $(5 \%) \operatorname{Sin}(B)=$
2. ( $25 \%$ ) The height of building is x . The depression angle of the light as it approaches the ground is $20^{\circ}$. The shade on the ground is 58 m long.
a. $(10 \%)$ Sketch a diagram that describes the situation.
b. $(15 \%)$ Find the height of the building.
3. (25\%) Daniel looks at the sky and sees an airplane whose height is 9 km above the ground. The distance between Daniel and the airplane is 12 km .
a. $(10 \%)$ Sketch a diagram that describes the situation.
b. $(15 \%)$ Find the angle of elevation of Daniel's head.
