## University of <br> South Australia

## Algebra: Equation Problems - Practice

## Question 1:

Find out if the following expressions are equations:

| No. | Expression | Answer |
| :--- | :---: | :---: |
| $\mathbf{1}$ | $5+6=11$ |  |
| $\mathbf{2}$ | $2+3=6$ |  |
| $\mathbf{3}$ | $x+y=z$ |  |
| $\mathbf{4}$ | $25+x<9$ |  |
| $\mathbf{5}$ | $5 x+y=33-z$ |  |

## Question 2:

Find out the value of ' $x$ ' from the equations:

1) $x+6=11$
2) $x+2=27$
3) $x+6=75$
4) $x-4=11$
5) $x-62=10-x$
6) $x+\frac{5}{7}=12$
7) $0.35+x=1.25$
8) $0.25+x=3.12$
9) $x+6=25-x$
10) $20+x=12.5+x$

## Question 3:

Find out the value of ' $x$ ' from the equations:

1) $2 x+6=11 x$
2) $5 x-2=27+\frac{x}{6}$
3) $x+6=12 x-3$
4) $9 x-4+6 x=11$
5) $5 x-88=10 x+x$
6) $\frac{x}{5}+7=15$
7) $0.35 x-1.2=2.25$
8) $0.75 x+0.8 x=2.5$
9) $5 x+6-9 x=25$
10) $20+x=12.5 x-0.25 x$

## Question 4:

Alex is twice as old as her younger brother Jake. Together their ages total 18. How old is Jake?

## Question 5:

Josh has a store where he sells stationery. He has bought $\$ 5000$ worth of pens to be sold at the store during the month. He is charging $\$ 3.00$ for one pen. How many pens he would need to sell in order to make $\$ 1000$ profits?

