## MATH 7 - HANDOUT 2

## 1. Review Problems

1. Solve the following equations:
(a) $2 x-22=3(1-x)$
(b) $1-\frac{2}{7} x=\frac{1}{7} x$
(c) $1-8(1-x)=7 x-8$
2. Draw the graph of the function $x-y=3$
3. Draw the graph for $y=|x-2|$
4. Solve: $|x-2|=5$
5. Simplify: $\frac{\left(x^{3} y\right)^{2} \cdot x^{2} y^{3}}{x^{3} y^{2}}$
6. Point $M$ has coordinates $(5,7)$.
(a) Find coordinates of the point $M_{1}$ obtained from M by reflection around the $x$-axis
(b) Find coordinates of the point $M_{2}$ obtained from $M$ by reflection around the diagonal line.
7. Rationalize the denominator: $\sqrt{\frac{2}{3}}$
8. What is the diagonal length of a square with side 3 ?
9. What is the sum of $1+2+3+\ldots+100$ ?
10. What is the sum of the first 40 terms of an arithmetic sequence $2,5,8,11, \ldots$ ?
