

1. Integers

1. The sum of two numbers exceeds their product by one. Their difference is equal to their product less five. Find the two numbers. (3mks)
2. $3x - 1 > -4$
 $2x + 1 \leq 7$
3. Find the value of x
 $2^{(x-3)} \times 8^{(x+2)} = 128$
4. Evaluate $\frac{-12 \div (-3) \times 4 - (-15)}{-5 \times 6 \div 2 + (-5)}$
5. Evaluate $\frac{3}{8} \begin{pmatrix} -2 & 3 \\ -1 & 4 \end{pmatrix} - \frac{1}{3} \begin{pmatrix} 1 & 1 \\ 4 & 0 \end{pmatrix} \times 2 \frac{2}{5}$
6. Given that $\mathbf{P} = \begin{pmatrix} -2 & 3 \\ -1 & 4 \end{pmatrix}$ and $\mathbf{R} = \begin{pmatrix} 1 & 1 \\ 4 & 0 \end{pmatrix}$ and if $\mathbf{Z} = \mathbf{P}^{-1}\mathbf{R}$. Find \mathbf{Z}
7. Evaluate $\frac{-8 \div 2 + 12 \times 9 - 4 \times 6}{56 \div 7 \times 2}$