Practice worksheet | Vectors in three dimensions

Vector operations

Name: _____ Date: _____

6 questions | 12 marks

1. For $a = (2, -1, 3)$, $b = (-1, 4, 2)$, find $a + b$ and $3a - 2b$. [2 marks]

2. Find the midpoint of $(2, 4, -2)$ and $(6, -2, 8)$. [2 marks]

3. Find P one quarter of the way from $(0, 1, 2)$ to $(8, 5, -2)$. [2 marks]

4. Are $A(1,1,0)$, $B(3,5,2)$, $C(4,7,3)$ collinear? [2 marks]

5. Solve $2\mathbf{p}+(1,-1,3)=(7,5,-1)$. [2 marks]

6. For parallelogram $ABCD$ in order, $A(1,0,1)$, $B(3,2,0)$, $C(6,1,4)$, find D. [2 marks]