A linear system as two inputs, v_a and v_b, and one output, v_{out}.
When $v_a = v_1$ and $v_b = v_2$, then $v_{out} = v_3$.
When $v_a = v_4$ and $v_b = v_5$, then $v_{out} = v_6$.

What is v_{out}, when $v_a = v_7$ and $v_b = v_8$?

v1 = 8 V

v2 = 0 V

v3 = 56 V

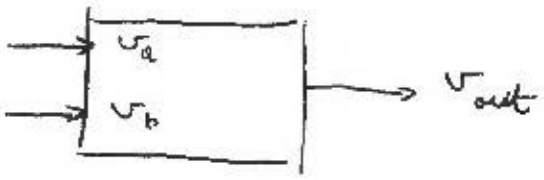
v4 = 0 V

v5 = -9 V

v6 = 45 V

v7 = 5 V

v8 = 8 V



$$a \cdot v_a + b v_b = v_{out}$$

$$\begin{cases} a \cdot 8 + b \cdot 0 = 56 \\ a \cdot 0 + b(-9) = 45 \end{cases}$$

$$\Rightarrow \begin{cases} a = \frac{56}{8} = 7 \\ b = \frac{45}{-9} = -5 \end{cases}$$

$$\Rightarrow a \cdot v_a + b v_b = 7 \cdot 5 + (-5) \cdot 8$$
$$= -5\ V$$

$$\boxed{v_{out} = -5\ V}$$