

1. Given: $V_{max} = 7.8V$, $V_{min} = 5V$

Solution:

$$Vm = V_{max} - V_{min} / 2$$

$$= 7.8 / 2$$

$$= 2.8 / 2$$

$$= 1.4V$$

Answer :

$$= 1.4V$$

2. Given:

$$V_{peak} = 8.37V, V_{through} = 3.21V$$

Solution:

$$m = V_{max} - V_{min} / V_{max} + V_{min} \times 100\%$$

$$= 8.37 - 3.21 / 8.37 + 3.21 \times 100\%$$

$$= 5.16 / 11.58 \times 100\%$$

$$= 44.56\%$$

Answer :

$$= 44.56\%$$

3. Given :

$$Vm = 5.32V, Vc = 9.83V$$

Solution:

$$m = V_m / V_c \times 100\%$$

$$= 5.32 / 9.83 \times 100\%$$

$$= 54.12\%$$

Answer:

$$54.12\%$$

4. Given :

$$V_c = V_{max} - V_m$$

$$= 6.19 - 0.453$$

$$= 5.737V$$

$$V_{min} = V_c - V_m$$

$$= 5.737 - 0.453$$

$$= 5.284V$$

Answer: 5.284V

5. Given:

$$V_{max} = V_c + V_m, V_{min} = V_c - V_m$$

Solution :

From no. 4 we have $V_{max} = 6.19V$ and $V_m = 0.453V$,

We found $V_{min} = 5.284V$,

and we know $V_c = V_{max} - V_m$

Also $V_{min} = V_c - V_m = (V_{max} - V_m) - V_m = V_{max} - 2V_m$

If we substitute the given values

$$V_{min} = 6.19 - 2(0.4543) = 6.19 - 0.906 = 5.284V$$

Answer: $V_{min} = V_{max} - 2V_m$