## Task

Mitre 10 is having a 2 day "You Choose the discount" sale. They send out a flyer with 8 discount vouchers on them.

| $25 \% \text { OFF }$ <br> any one item up to a maximum of $\$ 20$ | $20 \% \text { OFF }$ <br> any one item up to a maximum of $\$ 50$ | $15 \% \text { OFF }$ <br> any one item up to a maximum of $\$ 100$ | $15 \% \text { OFF }$ <br> any one item up to a maximum of $\$ 100$ |
| :---: | :---: | :---: | :---: |
| $12 \% \text { OFF }$ <br> any one item up to a maximum of $\$ 200$ | $12 \%$ OFF <br> any one item up to a maximum of $\$ 200$ | $10 \% \text { OFF }$ <br> any one item up to a maximum of \$1500 | $10 \% \text { OFF }$ <br> any one item up to a maximum of $\$ 1500$ |

Each voucher can only be used once. (i.e. 3 items need 3 vouchers)
Craig is a builder and wants to buy some hardware for a project he has planned.
He has a trade account with Mitre 10 but can also buy the hardware using cash.

Craig looks at the flyer above and records the standard prices of the hardware he wishes to buy. (All prices include GST of 15\%)

- Large box of nails
- Circular Saw
- Box of screws
- Electric drill
- 10L of paint
- Roller Kit
\$16.22
\$215
\$12.98
$\$ 99.95$
\$81.75
\$24.34
* Craig has 3 options when purchasing the hardware:

1. If he purchases all the above listed items and puts them on his trade account without using the discount vouchers, he pays $\frac{8}{9}$ of the full price.
2. If he purchases all the above listed items and pays cash without using the discount vouchers, he is entitled to have the GST (of $15 \%$ ) removed from the price of all items.
3. He can choose to pay for all the items using the discount vouchers.

## Investigate which of the 3 options Craig should choose in order to gain the greatest discount in price.

