M8 =21 days to go!

3 John has six shirts, eight ties and five cravats.

John is going out to dinner and he must choose a shirt **and** either a tie or a cravat to wear.

How many different combinations has John got to choose from?

Shirt + Tie

6 × 8

48 combinations

shirt + Cravat

8 × 5

40 combinations

Answer 88 combinations [3]

9 Evaluate

(a) $16^{\frac{3}{4}}$

$(16^{1/4})^3 = 2^3 = 8$

Answer _____ [1]

(b) $\dfrac{81^{\frac{1}{2}} - 125^{\frac{1}{3}}}{100^{-0.5}}$

$100^{-0.5} = \dfrac{1}{100^{0.5}}$

$= \dfrac{1}{\sqrt{100}}$

$= \dfrac{1}{10}$

$= \dfrac{\sqrt{81} - \sqrt[3]{125}}{\left(\frac{1}{10}\right)}$

$= \dfrac{9 - 5}{\left(\frac{1}{10}\right)}$

$= \dfrac{4}{\left(\frac{1}{10}\right)}$

$= 40$

Answer 40 [3]