Computation and Arithmetic

Name:

7   8   9   10   **11**   12

Navigator   Assessment   Student   25 min

Question: 1

In the expression: $\dfrac{180 \div 3^2}{6 \times 5 - 10} + 12$ which operation should be calculated first?

a) 6×5

b) -10

c) $180 \div 3$

d) $+12$

e) 3^2

Question: 2

Which number is the largest?

a) 2.1×10^6

b) 9.1×10^3

c) 6.1×10^5

d) 5.42×10^{-6}

e) 1.95×10^6

Question: 3

$4.2 \times 10^9 \times 2 \times 10^{-3} =$

Question: 4

Convert $3.2 \times 10^7 \, cm$ into kilometres

Question: 5

Which cereal packet represents best value for money? (Price per gram)

a)   500g for $2.50

b)   1 kg for $4.98

c)   620g for $3.10

d)   750 g for $3.65

e)   400g for $1.99

Question: 6

Which one of the following ratios is **not** equivalent to: 360 : 100

a)   36 : 10   b)   90 : 25   c)   72 : 20   d)   16 : 5   e)   3.6 : 1

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TEXAS INSTRUMENTS

Question: 7

Amy is mixing 2 – stroke fuel for her model plane. The instructions state that the petrol to oil mixture must be in the ratio 20:1. Amy wants to fill her 1 litre container. The amount of oil required is closest to:

a) $480ml$

b) $48ml$

c) $50ml$

d) $0.02l$

e) $0.021l$

Question: 8

A car's fuel economy is quoted as: 8.2 litres per 100 kilometres. How far would you expect to travel on 3 litres of fuel?

a) $30km$ b) $34.2km$ c) $37km$ d) $82km$ e) $27.3km$

Question: 9

Watermelon has a pH of approximately 8.8. Blueberries have a pH of approximately 3.4. This means:

a)   Watermelon is 2.5×10^5 times more acidic than blueberries

b)   Watermelon is 5.4 times more acidic than blueberries

c)   Blueberries are 2.5×10^5 times more acidic than watermelon

d)   Blueberries are 5.4 times more acidic than watermelon

e)   Blueberries are 2.6 times more acidic than watermelon

Question: 10

In 2010 a 7.1 magnitude earth quake devastated Christchurch (NZ). A 5.4 magnitude quake hit Gippsland in 2012. How many times stronger was the Christchurch quake? (Answer correct to one decimal place).