

# Solutions

## Part A – Multiple Choice

A 1.  $(+) \times (-)$  is always what as a product?  
 (a)  $(-)$  (b)  $(+)$  (c) Depends on the numbers (d) 0

C 2. The sum of 123.45 AND 2.7  
 (a) 120.75 (b) 125.15 (c) 126.15 (d) 333.315

$$\begin{array}{r} 123.45 \\ + 2.70 \\ \hline 126.15 \end{array}$$

B 3.  $62.7 \times 12.16$  would have what as the solutions? (Use decimal place or estimation)  
 (a) 7624.32 (b) 762.432 (c) 762432 (d) 76.2432

$$60 \times 10 = 600 \text{ so B}$$

D 4. What is  $(-15) \times (-3)$  equal to?  
 (a)  $(-18)$  (b)  $(-45)$  (c)  $(-12)$  (d)  $(+45)$

B 5. Find the difference of 14.001 and 5.39 using rounding to the ones place.  
 (a) 13.462 (b) 8.611 (c) 9.61 (d) IDK

$$\begin{array}{r} 14.001 \\ - 5.390 \\ \hline 8.611 \end{array}$$

D 6. In the question,  $9.32 - 6.85 \div 7 + 21 \times 6.7$ , which operation would you do first?  
 (a) addition (b) subtraction (c) multiplication (d) division

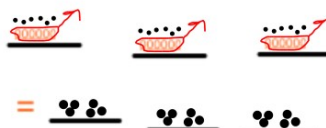
BEDMAS

## Part B – You must show work in order to obtain full value.

1. Model the following integer multiplication with tiles

(a)  $(+7) \times (-4)$

(b)  $(-3) \times (-6)$



2) Find the product of the following:

a)  $(-8) \times (-7)$

b)  $(+7) \times (-12)$

c)  $(+4) \times (+11)$

d)  $(-8) \times (+2)$

$=(+56)$

$=(+84)$

$=(+44)$

$=(+16)$

3) Use the distributive method to evaluate the following:

a)  $(-24) \times (+70) = (-1680)$

b)  $(-86) \times (-21) = (+1806)$

|    |                        |                 |
|----|------------------------|-----------------|
|    | 70                     |                 |
| 20 | $20 \times 70$<br>1400 | 1400            |
| 4  | $4 \times 70$<br>280   | $+ 280$<br>1680 |

|    |                        |                     |                       |
|----|------------------------|---------------------|-----------------------|
|    | 20                     | 1                   |                       |
| 80 | $20 \times 80$<br>1600 | $80 \times 1$<br>80 | $1600$<br>120         |
| 6  | $6 \times 20$<br>120   | $6 \times 1$<br>6   | $80$<br>$+ 6$<br>1806 |

4) Add the following

a)  $21.6 + 7.258$

$$\begin{array}{r} 21.6 \\ + 7.258 \\ \hline 28.858 \end{array}$$

b)  $2.8 + 154.$

$$\begin{array}{r} 2.8 \\ + 154.0 \\ \hline 156.8 \end{array}$$

5) Subtract the following

a)  $167.2 - 12.47$

$$\begin{array}{r} 167.20 \\ - 12.47 \\ \hline 154.73 \end{array}$$

b)  $14.7 - 0.6$

$$\begin{array}{r} 14.7 \\ - 0.6 \\ \hline 14.1 \end{array}$$

6) Find the actual answer

(a)  $3.56 \times 0.3$

hint  
 $356 \times 3$

$$\begin{array}{r} 3.56 \\ \times 0.3 \\ \hline 1.068 \end{array}$$

(b)  $1.689 \div 0.3 \rightarrow$

$16.89 \div 3$

$= 5.63$

$$\begin{array}{r} 5.63 \\ 3 \overline{) 16.89} \\ \underline{-15} \phantom{0} \\ 18 \phantom{0} \\ \underline{-18} \phantom{0} \\ 09 \\ \underline{-9} \\ 0 \end{array}$$

7) Evaluate (no calculators).

(a)  $31 - (7+5) \div 4 + 10$

$31 - 12 \div 4 + 10$

$31 - 3 + 10$

$28 + 10$

B &amp; D M A S

(b)  $10 + 61.2 \times 0.3 + 12.96 \div 0.4 - 1$

$10 + 18.36 + 12.96 \div 0.4 - 1$

$10 + 18.36 + 32.4 - 1$

$28.36 + 32.4 - 1$

$60.76 - 1$

$59.76$

(Show work on side of the paper)

Step 1)

$$\begin{array}{r} 61.2 \\ \times 0.3 \\ \hline 18.36 \end{array}$$

Step 2)  $12.96 \div 0.4$

$$\begin{array}{r} 32.4 \\ 4 \overline{) 129.6} \\ \underline{-12} \phantom{0} \\ 09 \phantom{0} \\ \underline{-8} \phantom{0} \\ 16 \\ \underline{-16} \\ 0 \end{array}$$

Step 3)  $10 + 18.36 = 28.36$

Step 4)

$$\begin{array}{r} 28.36 \\ + 32.40 \\ \hline 60.76 \end{array}$$