



Problem of the Week

Problem B and Solution

What Goes Where?

Problem

Mayala has ten number tiles, each with a different digit from 0 to 9. Help Mayala use all ten tiles, once each, to fill in the blanks in each problem.

- (a) The following decimal numbers are written in order from least to greatest. Use the ten tiles to fill in the empty boxes. Can you find more than one solution?

0.8, 1.□, 2.□, 3.□□, □.□, 3.□, 4.□, □.5, 5.□

- (b) Place the ten tiles so that each of the following equations is correct.

(i) $2.\square + \square.5 = 6.3$

(ii) $3.\square + \square.4 = 8.1$

(iii) $6.\square - \square.2 = 1.\square$

(iv) $7.\square - \square.3 = \square.6$



Solution

- (a) There are many possible solutions. Here are two:

0.8, 1.□0, 2.□1, 3.□5□6, □3.□7, 3.□8, 4.□2, □4.5, 5.□9

0.8, 1.□2, 2.□8, 3.□0□4, □3.□6, 3.□9, 4.□1, □5.5, 5.□7

- (b) The correct equations are:

(i) $2.\square8 + \square3.5 = 6.3$

(ii) $3.\square7 + \square4.4 = 8.1$

(iii) $6.\square2 - \square5.2 = 1.\square0$

(iv) $7.\square9 - \square1.3 = \square6.6$ OR $7.\square9 - \square6.3 = \square1.6$