Problem of the Week

Problem B

Symbolic Shapes

In each question, each shape (□, ◯, △) is equal to the same whole number. For example, $\square + \square = 8$ implies that $2 \times \square = 8$, so $\square = 4$. (The value of each shape can change from question to question.)

Determine the value of each shape in each question.

(a)

$$\square + \square = 8$$
$$\bigcirc + \square = 10$$

(b)

$$\square + \square + \square = 18$$
$$\square + \bigcirc + \bigcirc = 14$$
$$\bigcirc + \square + \triangle = 18$$

(c)

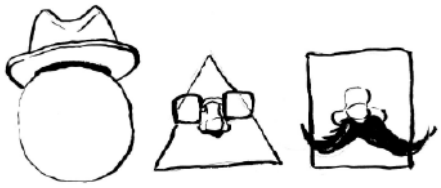
$$\bigcirc + \bigcirc + \bigcirc = 24$$
$$\square \times \bigcirc + \square = 36$$
$$\triangle \times \square + \triangle = 25$$

(d)

$$2 \times \triangle = 28$$
$$\triangle - 10 = \bigcirc$$
$$\bigcirc + \square + \square = 10$$

(e)

$$\square + \triangle + \triangle = 21$$
$$\triangle + \bigcirc - \square = 9$$
$$\square + \square = 18$$



EXTENSION: Create a similar problem and challenge a classmate to solve it.

THEMES: ALGEBRA, NUMBER SENSE