



Math Olympiad and Problem Solving Programs  
E120 - Honors Algebra Problem Solving  
Problem Set 1.2 - Algebra Expressions Solutions

Name:

Date:

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1. (a)  $m + 10$

(b)  $2n$

(c)  $pq - 5$

2. Let the other number be  $b$  and we have  $a \times b = 50$ . Then,  $b = \frac{50}{a}$ .

3.  $x + 3.74$

4. Expressed in dollars,  $n$  cents equal to  $\frac{n}{100}$  dollars. Then, answer is  $45 - x - m - \frac{n}{100}$ .

5. (a)  $x + 3$ .

(b) As a general principle, we should choose to use integers over decimals. Set the equation in terms of cents, we have

$$40x + 50(x + 3) = 90x + 150.$$

6. (a)  $\frac{221}{45} = 4\frac{41}{45}$

(b)  $\frac{89}{25} = 3\frac{14}{25}$

7. (a)  $-6$

(b)  $143$

8. (a)  $36$

(b)  $125$

9.  $-36p^3Q^2$

10.  $\frac{7}{2}x$