A P.I. R^2 Mini-Mystery

The Message in the Briefcase

Directions: Calculate each answer below, then use your solutions to discover what Ray Radicand found in Ms. Mann's briefcase.

1. $4x^2 + 11x - 20 = 0$

2. $5x^2 = 2x + 3$

3. $9x^2 + 2x = 11$

4. $6x^2 - 7x = -2$

5. $3x^2 - 7x - 14 = 0$

6. $-2x^2 - 9x = -14$

7. $6x^2 + 11x = -3$

8. $x^2 = -x + 1$

9. $5x^2 - 2x - 10 = 0$

10. $3x^2 - 2 = -x$

11. $-3x^2 + 8x = -10$

12. $4x^2 - x = 5$

13. $x^2 = 8x + 14$

14. $7x^2 - 3x = 10$

15. $-4 = -3x^2 - x$

Code Letter	Answer
A	$\frac{1 \pm \sqrt{51}}{5}$
B	$\frac{1 \pm \sqrt{3}}{2}$
C	$4 \pm \sqrt{30}$
D	$\{-\frac{1}{3}, 1\}$
E	$\frac{-4 \pm \sqrt{46}}{-3}$
F	$\{-\frac{3}{5}, 1\}$
G	$\frac{7 \pm \sqrt{97}}{12}$
H	$\{-4, \frac{5}{4}\}$
I	$\frac{9 \pm \sqrt{193}}{-4}$
J	$\{-\frac{1}{4}, 1\}$
K	$\frac{-5 \pm \sqrt{5}}{2}$
L	$\frac{7 \pm \sqrt{97}}{12}$
M	$\frac{-7 \pm \sqrt{-83}}{6}$
N	$\{-1, \frac{5}{4}\}$
O	$\{\frac{1}{2}, \frac{2}{3}\}$
P	$\{-1, \frac{4}{3}\}$
Q	$\{\frac{2}{3}, \frac{1}{2}\}$
R	$\{-\frac{3}{2}, -\frac{1}{3}\}$
S	$-2 \pm \sqrt{2}$
T	$\{-1, \frac{2}{3}\}$
U	$\{-1, \frac{10}{7}\}$
W	$\{-\frac{11}{9}, 1\}$
X	$\{-4, 2\}$
Y	$\frac{-1 \pm \sqrt{5}}{2}$
Z	$\frac{7 \pm \sqrt{217}}{6}$

What did Ray Radicand find in Ms. Mann's briefcase?

$\overline{}_{9}$ $\overline{}_{7}$ $\overline{}_{11}$ $\overline{}_{13}$ $\overline{}_{11}$ $\overline{}_{6}$ $\overline{}_{15}$ $\overline{}_{10}$ $\qquad$ $\overline{}_{2}$ $\overline{}_{4}$ $\overline{}_{7}$

$\overline{}_{9}$ $\overline{}_{4}$ $\overline{}_{12}$ $\overline{}_{11}$ $\overline{}_{3}$ - $\overline{}_{9}$ $\overline{}_{8}$ $\qquad$ $\overline{}_{10}$ $\overline{}_{7}$ $\overline{}_{6}$ $\overline{}_{15}$

$\overline{}_{10}$ $\overline{}_{4}$ $\qquad$ $\overline{}_{5}$ $\overline{}_{14}$ $\overline{}_{7}$ $\overline{}_{6}$ $\overline{}_{13}$ $\overline{}_{1}$.