

As is - Where is

In 1979 the Justice Department advertised for "as is - where is" buyers for a fishing boat called the *Ruptured Duck*. However there was a problem. To find out what the problem was;

- Factorise each of the expressions below.
- Locate the answer in the Answer section
- Write the alphabet that best matches with the answer beside the question For instances 1.  $2a + 6b = 2(a + 3b)$  answer is P ... Now at all places where 1 is written, put P. Do the same with the rest of the numbers to reveal the code.

- |                           |                     |
|---------------------------|---------------------|
| 1. $2a + 6b$              | 11. $a^2 + a - 6$   |
| 2. $3a - 6b$              | 12. $x^2 + x - 12$  |
| 3. $9a^2 + 4a$            | 13. $x^2 - 5x - 14$ |
| 4. $6x - 3y$              | 14. $a^2 + 5a - 14$ |
| 5. $6x^2 - 3x$            | 15. $a^2 - 8a + 12$ |
| 6. $2xy - 3x$             | 16. $x^2 - 2x - 3$  |
| 7. $3x + 6y + ax + 2ay$   | 17. $a^2 - a - 6$   |
| 8. $3a^2 - 4a + 3ab - 4b$ | 18. $x^2 - 2x - 15$ |
| 9. $ax + ay + bx + by$    | 19. $x^2 - y^2$     |
| 10. $2ab - 3b - 2a + 3$   | 20. $4a^2 - 9b^2$   |

**Answer section**

- |                  |                     |                 |                  |
|------------------|---------------------|-----------------|------------------|
| A. $(b-1)(2a-3)$ | F. $(x-7)(x+2)$     | N. $(a-3)(a+2)$ | T. $(3+a)(x+2y)$ |
| B. $(a+7)(a-2)$  | H. $(2a-3b)(2a+3b)$ | O. $3(2x-y)$    | U. $3(a-2b)$     |
| C. $(x+4)(x-3)$  | I. $(x-5)(x+3)$     | P. $2(a+3b)$    | W. $(a+3)(a-2)$  |
| D. $(a+b)(3a-4)$ | K. $x(2y-3)$        | R. $(a-6)(a-2)$ | X. $(x-3)(x+1)$  |
| E. $a(9a+4)$     | L. $(a+b)(x+y)$     | S. $3x(2x-1)$   | Y. $(x-y)(x+y)$  |

2-17-13-4-15-7-2-17-10-7-3-9-19    7-20-3    15-2-1-7-2-15-3-8    8-2-12-6    5-10-17-6  
 4-13-13    14-10-17-6-5    1-3-17-18-17-5-2-9-10    7-20-10-7    19-3-10-15    10-17-8  
 7-20-3    12-10-7-12-20    11-10-5    7-20-10-7    17-4-14-4-8-19    6-17-3-11  
 3-16-10-12-7-9-19    11-20-3-15-3    7-20-3    14-4-10-7    11-10-5.

