

Factoring All Polynomials Picture Puzzler

For # 1-6 factor the polynomials. For 6-12 factor completely and solve.

1. $9x^2 - 4x$

2. $10x^3 - 20x^2 - 2x + 4$

3. $3x^2 - 11x - 20$

4. $x^2 + 3x - 10$

5. $2x^2 + 20x + 48$

6. $16x^2 - 8x$

7. $2x^2 - 3x + 4x - 6 = 0$

8. $12x^2 - 4x = 0$

9. $2x^2 - x - 3 = 0$

10. $x^2 - 18x + 81 = 0$

11. $18x^2 + 30x + 3x + 5 = 0$

12. $8x^2 - 64x = 0$

Write the question number next to its answer. Use the pictures to find a common expression from literature. The blanks beneath the pictures each represent one word of the expression.

___ $x(9x - 4)$

2

___ $(3x + 4)(x - 5)$



___ $x = 0 ; x = 1/3$



___ $x = 0 ; x = 8$



___ $x = -1 ; x = 3/2$

TH

___ $(x + 5)(x - 2)$



___ $8x(2x - 1)$



___ $x = 3/2 ; x = -2$



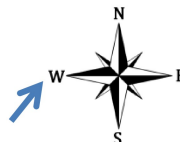
___ $2(5x^2 - 1)(x - 2)$



___ $x = 9$

K

___ $x = -5/3 ; x = -1/6$



___ $2(x + 6)(x + 4)$

2

#1

#2

#3

#4

#5

#6

#7

#8

#9

#10, 11, 12