ALGEBRA 1 · RIDDLE PRACTICE (Special Ed) Name _____ Date _____ Per _____

RIDDLE: What is a mathematician's favorite dog?

Lesson 7-4 Factoring Polynomials

Directions: Solve every problem and write your answer on the line. Inside each set, every lettered problem has a twin: one numbered problem with the very same answer. Write the letter in the answer box that has the twin's number to reveal the punchline.

SET 1 7-4a Find the Greatest Common Factor

I. What is the GCF of the terms of $8x^4 + 12x$? _____

R. Find the GCF of $18x^3$, $12x^2$, and $18x$. _____

L. Find the GCF of 6 and $30x^3$. _____

W. What is the GCF of the terms of $2x^2 - 8x$? _____

2. Find the GCF of $30x^4$, $30x^2$, and $24x$. _____

6. Find the GCF of $8x$ and $6x^4$. _____

8. Find the GCF of $20x^3$, $8x$, and $12x^4$. _____

9. Find the GCF of $6x$, $24x^3$, and 6. _____

SET 2 7-4b Factor Out the Greatest Common Factor

O. Factor. $18x + 30$ _____

E. Factor out the GCF. $4x + 4$ _____

R. Factor. $25x + 15$ _____

3. Factor out the GCF. $18x + 30$ _____

10. Factor. $4x + 4$ _____

11. Factor out the GCF. $25x + 15$ _____

SET 3 7-4c Factor a Polynomial Model

O. Factor $6x + 30$. Then evaluate it for $x = 4$ using the factored form. _____

E. Factor $4x^2 + 12$. Then evaluate it for $x = 5$ using the factored form. _____

T. Factor $4x^2 + 10x$. Then evaluate it for $x = 5$ using the factored form. _____

A. Factor $8x + 6$. Then evaluate it for $x = 3$ using the factored form. _____

1. Factor $3x^3 + 3x$. Then evaluate it for $x = 2$ using the factored form. _____

4. Factor $15x + 9$. Then evaluate it for $x = 3$ using the factored form. _____

5. Factor $15x^2 + 5x$. Then evaluate it for $x = 3$ using the factored form. _____

7. Factor $20x^2 + 16x$. Then evaluate it for $x = 2$ using the factored form. _____

ANSWER BANK each answer is used twice (one letter + one number): $6x$ 112 30 $4(x+1)$ $2x$ 54 $5(5x+3)$ 150 6 $4x$ $6(3x+5)$

ANSWER:

1		2	3	4	5		6	7	8	9	10	11	!

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Preview - the full worksheet and its answer key are at primeworksheet.com