

Extended Algebra 2
Factoring

The MAGIC "X"

Name _____

Directions: Fill in the blanks by finding two numbers that multiply to be the top number and add to be the bottom number.

1.
$$\begin{array}{c} 24 \\ \diagup \quad \diagdown \\ 4 \quad \times \quad 6 \\ \diagdown \quad \diagup \\ + \\ 10 \end{array}$$

2.
$$\begin{array}{c} 10 \\ \diagup \quad \diagdown \\ \quad \quad \quad \\ \diagdown \quad \diagup \\ 7 \end{array}$$

24
1 24
2 12
3 8
4 + 6 ✓

6.
$$\begin{array}{c} 16 \\ \diagup \quad \diagdown \\ \quad \quad \quad \\ \diagdown \quad \diagup \\ 8 \end{array}$$

7.
$$\begin{array}{c} 25 \\ \diagup \quad \diagdown \\ \quad \quad \quad \\ \diagdown \quad \diagup \\ -10 \end{array}$$

PAGE 1 OF 2 89 WORDS 130%

May 10-9:25 AM

The MAGIC "X"

1.
$$\begin{array}{c} 24 \\ \diagup \quad \diagdown \\ \quad \quad \quad \\ \diagdown \quad \diagup \\ 10 \end{array}$$

2.
$$\begin{array}{c} 10 \\ \diagup \quad \diagdown \\ \quad \quad \quad \\ \diagdown \quad \diagup \\ 7 \end{array}$$

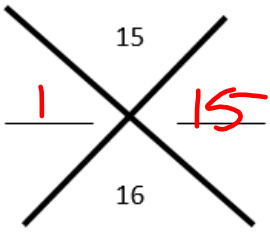
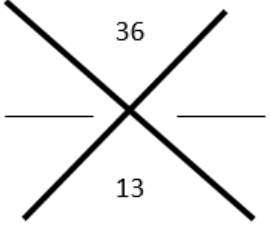
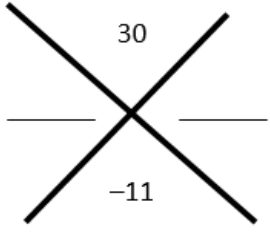
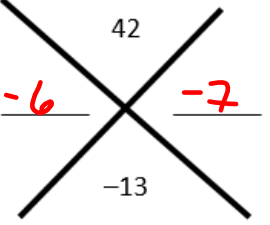
3.
$$\begin{array}{c} 12 \\ \diagup \quad \diagdown \\ \quad \quad \quad \\ \diagdown \quad \diagup \\ 8 \end{array}$$

6.
$$\begin{array}{c} 16 \\ \diagup \quad \diagdown \\ \quad \quad \quad \\ \diagdown \quad \diagup \\ 8 \end{array}$$

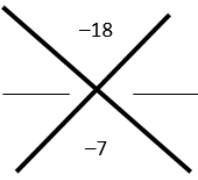
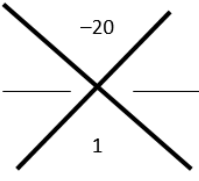
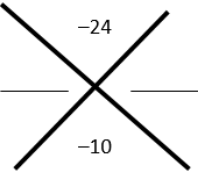
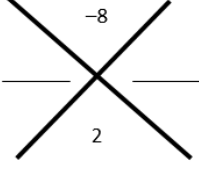
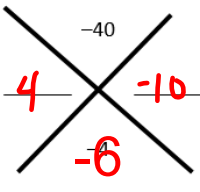
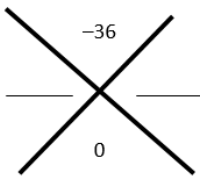
7.
$$\begin{array}{c} 25 \\ \diagup \quad \diagdown \\ \quad \quad \quad \\ \diagdown \quad \diagup \\ -10 \end{array}$$

8.
$$\begin{array}{c} 28 \\ \diagup \quad \diagdown \\ -3 \quad \times \quad -8 \\ \diagdown \quad \diagup \\ -11 \end{array}$$

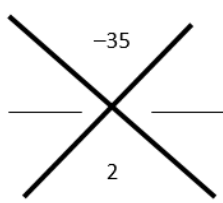
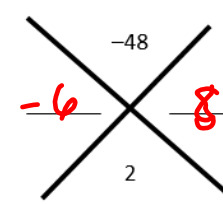
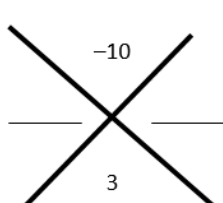
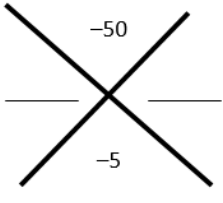
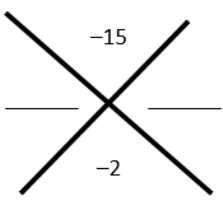
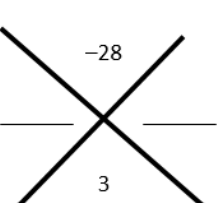
May 10-11:15 AM

<p>4. </p> <p>5. </p>	<p>9. </p> <p>10. </p>
---	---

May 10-11:15 AM

<p>11. </p> <p>12. </p> <p>13. </p>	<p>17. </p> <p>★ 18. </p> <p>19. </p>
--	---

May 10-11:15 AM

<p>14. </p> <p>15. </p> <p>16. </p>	<p>20. </p> <p>21. </p> <p>22. </p>
--	---

May 10-11:16 AM

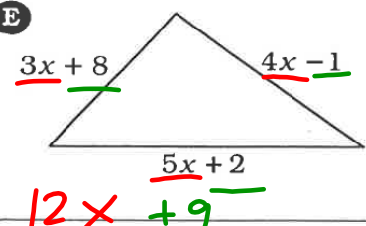
Mystery Message

NO WORK=NO CREDIT

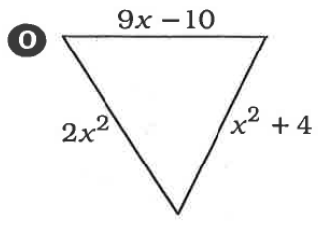
Do each exercise and find your answer at the bottom of the page. Write the letter of the exercise in the box above the answer. (Assume that figures that appear to be rectangular are rectangles.)

Part 1. Find the perimeter.

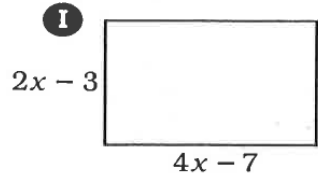
E



O

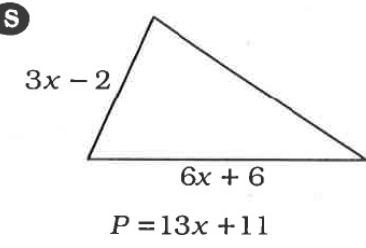


I

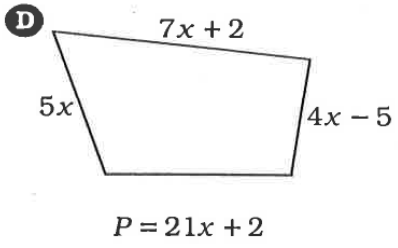


Part 2. Find the missing side length. The perimeter, P, is given.

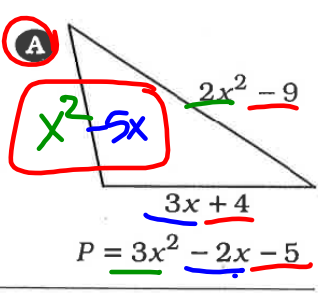
S



D



A



May 10-11:16 AM

NO WORK=NO CREDIT

Part 3. Find the area.

E

$3x$
 $8x - 5$

S

$2x^2$
 $x^2 + 7x + 4$

Q

x $2x$
 $2x$ x x

Part 4. Find the area of the shaded region.

R

$9x$ $7x - 2$
 $4x$
 $16x + 5$

W

$6x^2$ $10x^2 - 3x$
 8 $80x^2 - 28x$
 $11x + 20$
 $66x^3 + 120x^2$

A = L · W

R

$3x$ $5x - 12$
 $3x(5x - 12)$
 $15x^2 - 36x$

$4(x^2 + 2x) = -(4x^2 + 8x)$

$11x^2 - 44x$

R

May 10-11:17 AM

Challenge

Name _____

Peri _____

Solve each equation.

1) $8(7 - 7b) - 1 = 6(1 - 11b) + 3b$

$56 - 56b - 1 = 6 - 66b + 3b$

$55 - 56b - 1 = 6 - 66b + 3b$

$+63b$ $+63b$

$55 + 7b = 6$

-55 -55

$7b = -49$

7 7

$b = -7$

2) $2(7 - 12x) + 6 = -3 - 5(1 + 2x)$

3) $-12(x + 8) = -3(6 + 5x) - 6$

4) $-3(1 - 4n) + 2 = -(-8n + 7) + 5n$

May 10-11:18 AM