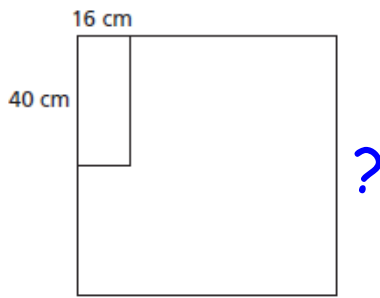


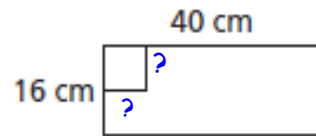
Unit Review...

Factors and Products

What is the side length of the smallest square that could be tiled with rectangles that measure 16 cm by 40 cm? Assume the rectangles cannot be cut. Sketch the square and rectangles.

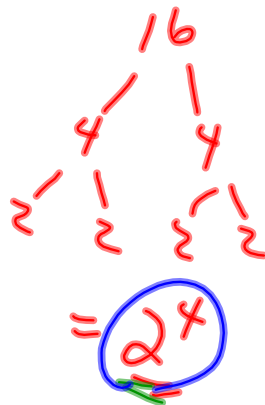
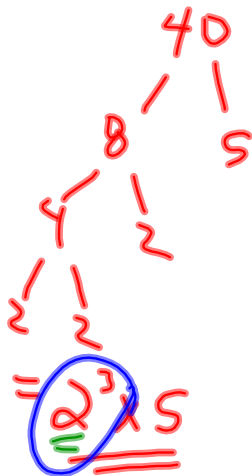


What is the side length of the largest square that could be used to tile a rectangle that measures 16 cm by 40 cm? Assume that the squares cannot be cut. Sketch the rectangle and squares.



?
LCM?

40 \div 16
GCF??



LCM: $2^4 \times 5$
= 80

GCF:
 $= 2^3$
= 8

$$(a+b)^2 - 9$$

$$\begin{aligned} & [(a+b) - 3] [(a+b) + 3] \\ & (a+b-3)(a+b+3) \end{aligned}$$

$$w^2 - 9$$

$$(w-3)(w+3)$$

$$(\text{☺})^2 - 25$$

$$(\text{☺}' - 5)(\text{☺}' + 5)$$

Multiplying Polynomials

Video Tutorial
EXPANDING POLYNOMIALS

[Download the printable notes here](#)

[Video tutorial for review](#)

$$1) \quad 4x(2x + 1) - 2x(3x - 3)$$

$$8x^2 + 4x - 6x^2 + 6x$$

$$= 2x^2 + 10x$$

$$2) \quad 2x(5x+3) - 7x(6x-5)$$

$$10x^2 + 6x - 42x^2 + 35x$$

$$= -32x^2 + 41x$$

$$3) \quad (x + 4)(x - 3)$$

$$= x^2 - 3x + 4x - 12$$

$$= x^2 + x - 12$$

$$(10x^5 + 3) (-2x^2 - 11x + 2)$$

$$= -20x^7 - 110x^6 + 20x^5 - 6x^2 - 33x + 6$$

Expand and simplify

$$\begin{array}{c} 2 \times 7 \times 3 \\ (x-3)(x-1)(x-5) \\ \underbrace{\hspace{10em}} \\ (x^2 - x - 3x + 3)(x-5) \\ (x^2 - 4x + 3)(x-5) \end{array}$$

$$= x^3 - 5x^2 - 4x^2 + 20x + 3x - 15$$

$$= x^3 - 9x^2 + 23x - 15$$

Expand and simplify

$$(x - 3)^2$$

$$\begin{aligned} & (x-3)(x-3) \\ & x^2 - 3x - 3x + 9 \\ & = \boxed{x^2 - 6x + 9} \end{aligned}$$

$$\text{or } \boxed{x^2 - 6x + 9}$$

Expand and simplify

$$(x - 1)^2 + (x + 4)^2$$

$$(x^2 - 2x + 1) + (x^2 + 8x + 16)$$

$$= 2x^2 + 6x + 17$$

GRAND FINALE... $-51x^2 + 107x - 136$

$$(3x+2)(5x-1) - 4(3x-6)^2 - (3x+5)(10x-2)$$

$$= 15x^2 - 3x + 10x - 2 - 4(9x^2 - 36x + 36) -$$

$$= \underbrace{15x^2 + 7x - 2} - \underbrace{36x^2 + 144x - 144} - \underbrace{30x^2 + 6x - 50x + 10}$$

$$= -51x^2 + 107x - 136$$

Unit Test: Monday, October 21

Review:

Pg. 198-200

2, 3

11, 12, 13, 14

18, 19, 20, 21

24 - 30

32, 33, 34

Practice Test: Pg. 201

1, 2, 3, 6, 7