



NAME:

7th Grade

- 1) A square court has an area of 256 ft^2 . How long is one side of the court?
- 2) Ms. Carnes bought a square rug with an area of 62 ft^2 . Will the rug fit in an 8 by 9 ft room? Why or why not?
- 3) A gallon of water sealant can cover a square deck with an area of 190 ft^2 . How long is each side of the deck, rounded to the nearest tenth of a foot?
- 4) Mrs. Toy wants to install a square stained-glass window with an area of 500 in^2 . To the nearest tenth of an inch, what length of wood would be needed to go around the window?
- 5) One of the squares on Laura's chessboard is 13 cm^2 . What is the width of the side of the square, to the nearest tenth of a cm?

Write an equation to represent the situation. Do not solve.

- 1) One day your aunt gave you 20 pieces of candy, and you ate 2 pieces each day. After "d" days, there are 10 pieces left.
- 2) A carnival charges \$5 to enter and \$2 per ride. After "r" rides, you paid \$23 total.
- 3) A book has 150 pages and you read 3 pages per day. After "d" days, there are 60 pages left.
- 4) The sum of 3 consecutive numbers is 54.
- 5) Two times a number minus 5 is 12.

Simplify.

$$1) (6x^4)^2$$

$$2) \frac{4w^{-3}}{-4w^{-1}}$$

$$3) \frac{x^{-2}}{3x^{-2}}$$

$$4) \frac{m^3 n^2}{m^4 n^{-3}}$$

$$5) \frac{2x^4 \cdot 2x^{-1}}{x^3}$$

$$6) (4xy)^3$$

$$7) 2yx^3 \cdot 2x^2y$$

$$8) x(zy^{-3})^0$$

Solve:

$$1) -4(2x-6) = 5$$

$$2) 5x+7+2x = 13$$

$$3) 2(x-1) + 7x = 15$$

$$4) -6 + 4(x+2) = 7$$

$$5) -3x + 6 + 2x = 10$$

$$6) 4x - 1 + 6x = 13$$

$$7) 12 + 3(2x+3) = 20$$

$$8) 7x - 6x - 4 - 10 = 3$$