Lesson QF - 2

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Objective: Quadratic Word Problems

Homework QF-2 – Wordproblem Megaburn! (Sheet follows this lesson)

Do Now: SOLVE 1. $x^2 + x - 6 = 0$ 2. $y^2 = 40$

Exam Prep: What is the sum of the roots of $x^2 + 7x + 12 = 0$?

A) –12 B) –7 C) 7 D) 12

A few word problems for a good brain burning workout.

Translate and solve!

1. The Doctor is 3 years older than The Cat. The product of their ages is 40. How old is The Cat?

2. A rectangle has an area of 24 square units. The width is 5 units less than the length. What is the length, in units, of the rectangle?

3. **The length of a rectangle is 8 inches more than its width. The area of the rectangle is 48 square inches. What is the length, in inches, of the rectangle?**

4. **Find three consecutive odd integers such that the product of the first and the second exceeds the third by 8.**

5. **Abe is building a rectangular chicken coop that he wishes to enclose. The width of the coop is 2 yards less than the length. If the area of the chicken coop is 15 square yards, how many yards of fencing would he need to completely enclose the pen?**

6. **Three brothers have ages that are consecutive even integers. The product of the first and third boys' ages is 20 more than twice the second boy's age. Find the age of each of the three boys.**

Name: _____ Per: _____ **Homework QF2**

1. The product of two consecutive integers is 56. Find the numbers.

2. The product of two even consecutive integers is 24. Find the integers.

3. Javon's homework is to determine the dimensions of his rectangular backyard. He knows that the length is 10 feet more than the width, and the total area is 144 square feet. Write an equation that Javon could use to solve this problem. Then find the dimensions, in feet, of his backyard.

4. The area of a rectangular walkway is 50 square meters. If the length is 5 more than its width, what are the dimensions of the walkway?

5. The width of a rectangle is 6 less than the length. If the area is 40 square feet, what are the dimensions of the rectangle?

6. Find three consecutive odd integers such that the product of the first and the second exceeds the third by 8. Find the numbers.

7. Tamara has two sisters. One of the sisters is 7 years older than Tamara. The other sister is 3 years younger than Tamara. The product of Tamara's sisters' ages is 24. How old is Tamara?