BitWith Bite

MATHEMATICS WORKSHEET

Quadratic Formula

Chapter: Algebra I · Level ★★☆ · Time: 30 min

SCORE ___ / 20

Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

✓ Identify a, b and c. ✓ Compute the discriminant. ✓ Interpret the discriminant.

✓ Solve using the quadratic formula.

Section A · Concept Check • BEGINNER 4 × 1 = 4

1 For $5x^2 + 4x - 1 = 0$, a, b, c are:

◯ A. 5, 4, −1 ◯ B. 5, 4, 1 ◯ C. 4, 5, −1 ◯ D. 5, −4, 1

2 Discriminant of $x^2 - 6x + 9 = 0$:

◯ A. 0 ◯ B. 36 ◯ C. −36 ◯ D. 9

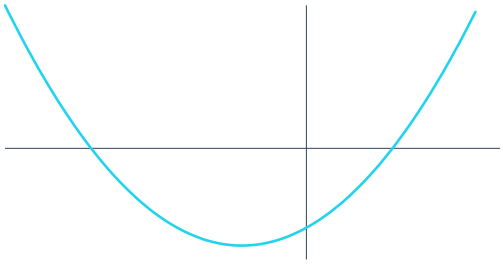
3 Discriminant of $x^2 + 4x + 8 = 0$:

◯ A. −16 ◯ B. 16 ◯ C. 0 ◯ D. 48

4 Solve $x^2 + 3x - 10 = 0$:

◯ A. x = 2 or −5 ◯ B. x = −2 or 5 ◯ C. x = 10 or −1

◯ D. x = 5 or 2



y = x² + 3x − 10 with roots x = 2 and x = −5

Section B · Problem Solving • INTERMEDIATE 2 + 3×3 = 11

5 The discriminant is _____.

6 For $5x^2 + 4x - 1 = 0$, a = _____.

7 Find a, b, c for $5x^2 + 4x - 1 = 0$.

8 Find the discriminant of $x^2 - 6x + 9 = 0$.

9 Find the discriminant of $x^2 + 4x + 8 = 0$.

Section C · Challenge • CHALLENGE 5

10 Solve $x^2 + 3x - 10 = 0$ using the quadratic formula.

Reflection — the most useful thing I learned: _____

A ___/4 B ___/11 C ___/5 **Total** ___/20

Teacher's Signature

Parent's Signature

✂ ANSWER KEY — FOLD OR CUT BEFORE HANDING OUT

1-A 2-A 3-A 4-A | 5 b^2 - 4ac 6 5 7 = a=5, b=4, c=-1 8 = 0 9 = -16 | 10 = x = 2 or x = -5