

Mathematics Algebra I Benchmark Assessment

4 The state volleyball association invited 64 teams to compete in a tournament. After each round, half of the teams were eliminated. Which equation represents the number of teams, t , that remained in the tournament after r rounds?

(A) $t = 64(0.5)^r$

(B) $t = 64(r)^{0.5}$

(C) $t = 64(1.5)^r$

(D) $t = 64(-0.5)^r$

5 Which of the following equations has 4 and 5 as its roots?

(A) $x^2 + 9x + 20 = 0$

(B) $x^2 + 9x - 20 = 0$

(C) $x^2 - 9x + 20 = 0$

(D) $x^2 - 9x - 20 = 0$

6 What are the roots of the equation $x^2 + 4x = 12$?

(A) -6 and 2

(B) $2\sqrt{2}$ and $2\sqrt{2}$

(C) -2 and 6

(D) $2\sqrt{2} - 2$ and $-2\sqrt{2} - 2$