

TIME LIMIT: 15 MINUTES

1. Find the exact value of  $8^{2/3}$ .

2. Simplify and write as a single radical:  $3\sqrt{2} + 5\sqrt{8}$

3. Factor completely:  $2x^2 - 3x - 2$ .

4. Solve for  $x$ :  $32 - 2x^2 = 0$ .

5. Factor completely:  $16x - 2x^4$

6. Find the exact value of  $16^{-1/4}$

7. Find all the solutions of  $x(2x - 1) = 2$ .

8. Simplify  $(-2x^2y^{-3})^3$ . Leave the final answer without any negative exponents.

9. Simplify:  $\frac{2-t}{2t^2-8}$

10. Simplify and write as a single fraction:  $\frac{2}{x} - \frac{3}{2x^2}$

## Answers – PR 1

1. 4

2.  $13\sqrt{2}$

3.  $(2x+1)(x-2)$

4.  $\pm 4$

5.  $2x(2-x)(4+2x+x^2)$

6.  $1/2$

7.  $\frac{1 \pm \sqrt{17}}{4}$

8.  $-\frac{8x^6}{y^9}$

9.  $\frac{-1}{2t+4}$

10.  $\frac{4x-3}{2x^2}$