

Diagnostic Exam

MATH 1012/QRMS 1010 Quantitative Reasoning and Mathematical Skills

January 12, 2004

1. $\frac{1}{2} + \frac{2}{3}$

2. $\frac{15}{8} \cdot \frac{4}{21}$

3. $\frac{2x}{5} + \frac{7}{3y}$

4. $\frac{x}{4} \cdot \frac{y}{5}$

5. $5 - |-4|$

6. $\sqrt[3]{27}$

7. $(2x - 4)(3y + 1)$

8. $7x + 30 = 2$

9. $x + y = 12$
 $x - y = 6$

10. If 16.0 grams of oxygen combines with 2.0 grams of hydrogen to form 18.0 grams of water, how much hydrogen is required to produce 36.0 grams of water?