

Rational Numbers Final Exam Review - Key

Introduction

- Fractions to Decimals

$$\frac{2}{3} \quad 0.\overline{6}$$

- Comparing Fractions

$$\frac{3}{4}, \frac{70}{100}, \frac{2}{5}$$

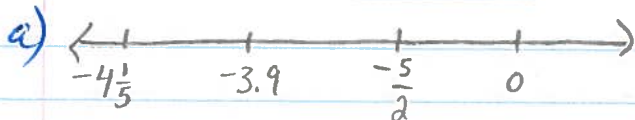
- Adding/Subtracting Fractions

$$\text{a) } \frac{25}{24} \quad \text{b) } \frac{37}{12}$$

- Multiplying \div Dividing Fractions

$$\text{a) } \frac{2}{15} \quad \text{b) } 9$$

Comparing and Ordering Rational Numbers



b) $-\frac{10}{11}$

- c) Possible answers include:

$$\frac{7}{8}, \frac{14}{16}, -\left(-\frac{14}{16}\right), \frac{21}{24}, -\left(-\frac{21}{24}\right)$$

d) $-\frac{4}{7}$

- e) 0.84 [Any decimal between $0.8\overline{3}$ & 0.8571428571]

- f) $-\frac{51}{100}$ [Any fraction between $-\frac{61}{100}$ & $-\frac{50}{100}$ ($-\frac{1}{2}$)]
- same

Problem Solving with Rational Numbers in Decimal Form

a) i) 3.69 ii) 46.48 iii) -0.41

b) height = 1260m time to reach the ground = 157.5min.

c) 5.28m

Problem Solving with Rational Numbers in Fraction Form

a) i) $\frac{19}{12}$ ii) $-\frac{1}{4}$ iii) $\frac{48}{49}$ iv) $-\frac{10}{9}$

b) \$ 16.67

c) i) $-\frac{7}{3}$ ii) $-\frac{7}{1}$ or -7

Determining Square Roots of Rational Numbers

a) 28.09

b) i) Yes ii) No iii) Yes

c) i) 81 ii) 2.002498439

d) 32cm

e) 6.8m