

Assignment 1

Rational Numbers

1. Tick (✓) the correct answer.

- (a) Which of the following rational numbers is in the standard form?
 (i) $\frac{-18}{26}$ (ii) $\frac{-56}{91}$ (iii) $\frac{-27}{64}$ (iv) $\frac{28}{105}$
- (b) Which rational number has the absolute value of $\frac{4}{3}$?
 (i) $\frac{-3}{4}$ (ii) -1 (iii) 0 (iv) $\frac{-4}{3}$
- (c) Which of the following numbers is its own reciprocal?
 (i) 10 (ii) 0 (iii) $\frac{1}{5}$ (iv) 1
- (d) Which one is not true for rational numbers?
 (i) Subtraction is not associative. (ii) Addition is associative.
 (iii) Subtraction is commutative. (iv) Addition is commutative.
- (e) Which one is true for rational numbers?
 (i) Addition is not associative. (ii) Subtraction is associative.
 (iii) Subtraction is not commutative. (iv) Addition is not commutative.

2. Write the following rational numbers in their standard form.

- (a) $\frac{17}{-25}$ (b) $\frac{78}{-91}$ (c) $\frac{-14}{-35}$ (d) $\frac{-27}{72}$

3. Write three equivalent rational numbers for each of the following.

- (a) $\frac{-4}{5}$ (b) $\frac{3}{-2}$
- (c) $\frac{2}{7}$ (d) $\frac{-3}{4}$

4. Find the absolute value for each of the following.

- (a) $\left| \frac{-7}{25} \right|$ (b) $\left| \frac{-8}{23} \right|$
- (c) $\left| \frac{-4}{15} \right|$ (d) $\left| \frac{-3}{11} \right|$

5. Which is a greater rational number in each of the following?

- (a) $\frac{2}{3}, \frac{3}{2}$ (b) $\frac{5}{3}, \frac{4}{5}$
- (c) $\frac{-3}{5}, \frac{-5}{4}$ (d) $\frac{-1}{5}, \frac{1}{5}$

6. Find two rational numbers between the given rational numbers.

- (a) $\frac{7}{5}$ and $\frac{6}{5}$ (b) $\frac{-2}{3}$ and $\frac{1}{4}$
- (c) 5 and 4 (d) $\frac{3}{5}$ and $\frac{5}{4}$