Level 8

I. Compare the rational numbers.

(A) Same denominators

(i) Positive rational numbers

(1) $\frac{4}{7} \square \frac{5}{7}$

(2) $\frac{21}{23} \square \frac{16}{23}$

(ii) Negative rational numbers

(1) $\frac{-4}{7} \square \frac{-5}{7}$

(2) $\frac{-21}{23} \square \frac{-16}{23}$

(iii) Positive and negative rational numbers

(1) $\frac{-4}{7} \square \frac{5}{7}$

(2) $\frac{-21}{23} \square \frac{16}{23}$

(B) Different denominators

(i) Positive rational numbers

(1) $\frac{4}{6} \square \frac{5}{8}$

(2) $\frac{21}{25} \square \frac{16}{23}$

(ii) Negative rational numbers

(1) $\frac{-4}{9} \square \frac{-5}{6}$

(2) $\frac{-3}{5} \square \frac{-1}{7}$

(iii) Positive and negative rational numbers

(1) $\frac{-5}{3} \square \frac{5}{8}$

(2) $\frac{-9}{11} \square \frac{1}{2}$

II. Arrange in ascending and descending order.

(1) $\frac{1}{6}, \frac{-1}{5}, \frac{1}{4}, \frac{-1}{3}$

Ascending order				
Descending order				

(2) $\frac{-8}{9}, \frac{-4}{7}, \frac{-2}{3}, \frac{-7}{12}$

Ascending order				
Descending order				

(3) $\frac{2}{-5}, \frac{7}{4}, \frac{-7}{9}, \frac{8}{9}$

Ascending order				
Descending order				

Answer Key for the Worksheet

I. Compare the rational numbers.

(A) Same denominators

(i) Positive rational numbers

(1) $\frac{4}{7} < \frac{5}{7}$

(2) $\frac{21}{23} > \frac{16}{23}$

(ii) Negative rational numbers

(1) $\frac{-4}{7} < \frac{-5}{7}$

(2) $\frac{-21}{23} < \frac{-16}{23}$

(iii) Positive and negative rational numbers

(1) $\frac{-4}{7} < \frac{5}{7}$

(2) $\frac{-21}{23} < \frac{16}{23}$

(B) Different denominators

(i) Positive rational numbers

(1) $\frac{4}{6} > \frac{5}{8}$

(2) $\frac{21}{25} > \frac{16}{23}$

(ii) Negative rational numbers

(1) $\frac{-4}{9} > \frac{-5}{6}$

(2) $\frac{-3}{5} < \frac{-1}{7}$

(iii) Positive and negative rational numbers

(1) $\frac{-5}{3} < \frac{5}{8}$

(2) $\frac{-9}{11} < \frac{1}{2}$

II. Arrange in ascending and descending order.

(1) $\frac{1}{6}, \frac{-1}{5}, \frac{1}{4}, \frac{-1}{3}$

Ascending order	$\frac{-1}{3}$	$\frac{-1}{5}$	$\frac{1}{6}$	$\frac{1}{4}$
Descending order	$\frac{1}{4}$	$\frac{1}{6}$	$\frac{-1}{5}$	$\frac{-1}{3}$

(2) $\frac{-8}{9}, \frac{-4}{7}, \frac{-2}{3}, \frac{-7}{12}$

Ascending order	$\frac{-8}{9}$	$\frac{-2}{3}$	$\frac{-7}{12}$	$\frac{-4}{7}$
Descending order	$\frac{-4}{7}$	$\frac{-7}{12}$	$\frac{-2}{3}$	$\frac{-8}{9}$

(3) $\frac{2}{-5}, \frac{7}{4}, \frac{-7}{9}, \frac{8}{9}$

Ascending order	$\frac{-7}{9}$	$\frac{2}{-5}$	$\frac{8}{9}$	$\frac{7}{4}$
Descending order	$\frac{7}{4}$	$\frac{8}{9}$	$\frac{2}{-5}$	$\frac{-7}{9}$