1 Express each fraction as a decimal. State whether the decimal is a terminating or a recurring decimal.

(e) $-\frac{7}{12}$

❷ Express each decimal as a fraction or a mixed number in its simplest form.

(d) -8.25

4 Arrange the following in ascending order.

$$\frac{23}{70},\quad 0.\dot{3}0\dot{2},\quad 0.3\dot{0}\dot{2},\quad 0.30\dot{2},\quad \frac{1}{3}$$

5 **(a)** Arrange the following in ascending order.

$$\frac{1}{14}, \quad \frac{1}{5}, \quad \frac{1}{11}, \quad \frac{1}{8}$$

(b) Arrange the following in descending order.

$$\frac{13}{14}, \quad \frac{4}{5}, \quad \frac{10}{11}, \quad \frac{7}{8}$$

7 Determine whether each statement below is TRUE or FALSE. Give a counterexample if the statement is false.

(a) The sum of two irrational numbers is always irrational.

(b) The sum of a rational number and an irrational number is irrational.

(c) The product of two irrational numbers is always irrational.

(d) The product of a non-zero rational number and an irrational number is irrational.