

**Exercise 10**

**Real Numbers** List the elements of the given set that are

- (a) natural numbers
- (b) integers
- (c) rational numbers
- (d) irrational numbers

$$\left\{ 1.3, 1.3333\dots, \sqrt{5}, 5.34, -500, 1\frac{2}{3}, \sqrt{16}, \frac{246}{579}, -\frac{20}{5} \right\}$$

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**Solution**

- (a) Natural numbers:  $\sqrt{16}$
- (b) Integers:  $\sqrt{16}, -500, -\frac{20}{5}$
- (c) Rational numbers:  $\sqrt{16}, -500, -\frac{20}{5}, 1.3, 1.3333\dots, 5.34, 1\frac{2}{3}, \frac{246}{579}$
- (d) Irrational numbers:  $\sqrt{5}$