#### Some notes from class

2018-03-21



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#### Subsets of the real numbers

Example 1:

$$S = \left\{ \frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \frac{6}{7}, \dots \right\} \subseteq \mathbb{R}$$

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#### Subsets of the real numbers

Example 1:

$$S = \left\{ \frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \frac{6}{7}, \dots \right\} \subseteq \mathbb{R}$$

Example 2:

$$S = \{3, 3.1, 3.14, 3.141, 3.1415, \ldots\} \subseteq \mathbb{R}$$

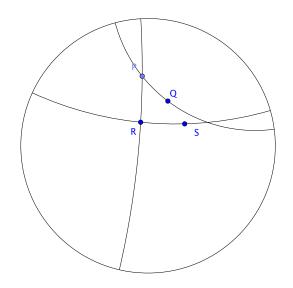
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#### Set-up for the next few results

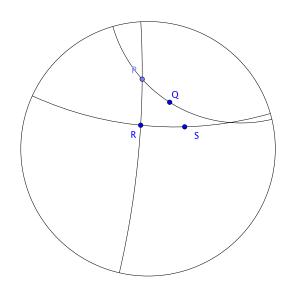
#### The "usual set-up"

Let R and S be points with  $R \neq S$ , and suppose that P is a point not on  $\overrightarrow{RS}$  with  $\overrightarrow{PR} \perp \overrightarrow{RS}$ . We will typically be interested in rays of the form  $\overrightarrow{RQ}$ , where Q is a point on the same side of  $\overrightarrow{PR}$  as S.

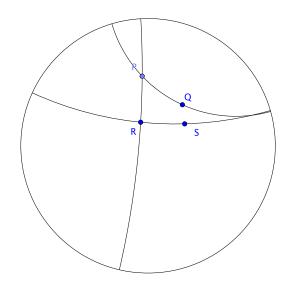
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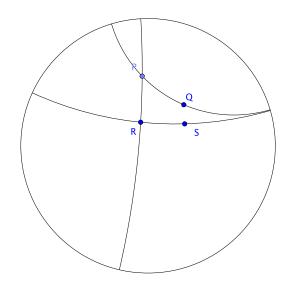


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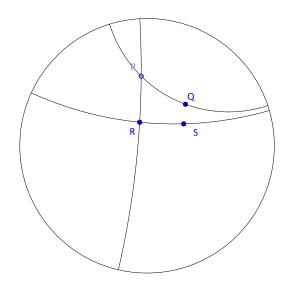


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