King Abdulaziz University

0.1 The Real Numbers and the Cartesian Plane

Dr. Hamed Al-Sulami

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http://www.kau.edu.sa/hhaalsalmi
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1. Real Numbers and Coordinate Systems

1.1. Real Numbers

1.2. Properties of Inequalities

1.3. Types of Intervals in $\mathbb{R}$

Let a and b be real numbers such that $a < b$.The following table lists the nine possible types of intervals.

EXAMPLE 1. Solve: $-1 \leq \dfrac{4-3x}{2} < 1$

Solution:

EXAMPLE 2. Solve: $x^2 - 3x > 4$

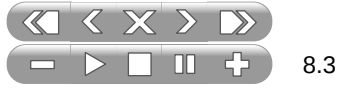
Solution:

1.4. Absolute Value

1.5. Properties of Absolute Value

1.6. Cartesian Coordinates

1.7. The Distance



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