**Graph the solution set of each compound inequality.**

|  |  |
| --- | --- |
|  | and |
|  | **0**  **1**  **2**  **3**  **4**  **-1**  **-2**  **-3**  **-4**  **5**  **6**  **-5**  **-6** |
|  | or |
|  | **0**  **3**  **6**  **9**  **12**  **-3**  **-6**  **15**  **18**  **21**  **24**  **27**  **30** |
|  |  |
|  | **0**  **1**  **2**  **-1**  **-2**  **-3**  **-4**  **-5**  **-6**  **-7**  **-8**  **-9**  **-10** |
|  | or |
|  | **0**  **1**  **2**  **-1**  **-2**  **-3**  **-4**  **-5**  **-6**  **-7**  **-8**  **-9**  **-10** |

**Write a compound inequality for each graph.**

|  |  |
| --- | --- |
|  | **0**  **1**  **2**  **3**  **4**  **-1**  **-2**  **5**  **6**  **7**  **8**  **9**  **10** |
|  | **0**  **2**  **4**  **6**  **8**  **-2**  **-4**  **-6**  **-8**  **10**  **12**  **-10**  **-12** |
|  | **0**  **1**  **2**  **3**  **4**  **-1**  **-2**  **-3**  **-4**  **5**  **6**  **-5**  **-6** |
|  | **0**  **1**  **2**  **3**  **4**  **-1**  **-2**  **5**  **6**  **7**  **8**  **9**  **10** |

**Solve each compound inequality. Then graph the solution set.**

|  |  |
| --- | --- |
|  | or |
|  | **0**  **1**  **2**  **3**  **4**  **-1**  **-2**  **5**  **6**  **7**  **8**  **9** |
|  |  |
|  | **0**  **1**  **2**  **3**  **4**  **-1**  **-2**  **5**  **6**  **7**  **8**  **9**  **10** |
|  | and |
|  | **0**  **1**  **2**  **-1**  **-2**  **-3**  **-4**  **-5**  **-6**  **-7**  **-8**  **-9**  **-10** |
|  | or |
|  | **-7**  **-6**  **-5**  **-8**  **-9**  **-10**  **-11**  **-12**  **-13**  **-7**  **-8**  **-9**  **-10** |

**Write and solve each inequality.**

|  |  |
| --- | --- |
|  | Two third of a number minus three is less than five or at least seven. |
|  | The sum of twice a number and four is between negative six and twelve. |

1. A typical human eye can see light within the 430 to 770 THz range. Write the compound inequality that describes the frequency at which of a typical human can see.

**ANSWER**

**Graph the solution set of each compound inequality.**

|  |  |
| --- | --- |
|  | and |
|  | **0**  **1**  **2**  **3**  **4**  **-1**  **-2**  **-3**  **-4**  **5**  **6**  **-5**  **-6** |
|  | or |
|  | **0**  **3**  **6**  **9**  **12**  **-3**  **-6**  **15**  **18**  **21**  **24**  **27**  **30** |
|  |  |
|  | **0**  **1**  **2**  **-1**  **-2**  **-3**  **-4**  **-5**  **-6**  **-7**  **-8**  **-9**  **-10** |
|  | or  or |
|  | **0**  **1**  **2**  **-1**  **-2**  **-3**  **-4**  **-5**  **-6**  **-7**  **-8**  **-9**  **-10** |

**Write a compound inequality for each graph.**

|  |  |
| --- | --- |
|  | **0**  **1**  **2**  **3**  **4**  **-1**  **-2**  **5**  **6**  **7**  **8**  **9**  **10** |
|  |  |
|  | **0**  **2**  **4**  **6**  **8**  **-2**  **-4**  **-6**  **-8**  **10**  **12**  **-10**  **-12** |
|  | or |
|  | **0**  **1**  **2**  **3**  **4**  **-1**  **-2**  **-3**  **-4**  **5**  **6**  **-5**  **-6** |
|  |  |
|  | **0**  **1**  **2**  **3**  **4**  **-1**  **-2**  **5**  **6**  **7**  **8**  **9**  **10** |
|  |  |

**Solve each compound inequality. Then graph the solution set.**

|  |  |  |
| --- | --- | --- |
|  | oror | |
|  |  |  |
|  |  |  |
|  |  |  |
|  | **0**  **1**  **2**  **3**  **4**  **-1**  **-2**  **5**  **6**  **7**  **8**  **9** | |
|  |  | |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  | **0**  **1**  **2**  **3**  **4**  **-1**  **-2**  **5**  **6**  **7**  **8**  **9**  **10** | |
|  | and | |
|  |  |  |
|  |  |  |
|  |  |  |
|  | **0**  **1**  **2**  **-1**  **-2**  **-3**  **-4**  **-5**  **-6**  **-7**  **-8**  **-9**  **-10** | |
|  | or | |
|  |  |  |
|  |  |  |
|  |  |  |
|  | **-7**  **-6**  **-5**  **-8**  **-9**  **-10**  **-11**  **-12**  **-13**  **-7**  **-8**  **-9**  **-10** | |

**Write and solve each inequality.**

|  |  |  |
| --- | --- | --- |
|  | **Two third of a number minus three is less than five or at least seven.** | |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  | **or** | |
|  | **The sum of twice a number and four is between negative six and twelve.** | |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  | |

1. A typical human eye can see light within the 430 to 770 THz range. Write the compound inequality that describes the frequency at which of a typical human can see.