

Calculating Net Forces - Examples

Interpret each drawing of forces on the box. Calculate and write the resulting net force on the blank below the box (make sure to include the correct unit of measure). On the next blank, write the word balanced or unbalanced and circle the arrow for the direction of the resulting net force. See the examples below.

Examples:

<p>A.</p> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="margin-right: 20px;">225 N</div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; margin-top: 10px;"> <hr style="width: 100%;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>	<p>B.</p> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="margin-left: 20px;">75 N</div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; margin-top: 10px;"> <hr style="width: 100%;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>
<p>C.</p> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="margin-right: 20px;">50 N</div> <div style="margin-left: 20px;">100 N</div> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="margin-right: 20px;">50 N</div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; margin-top: 10px;"> <hr style="width: 100%;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>	<p>D.</p> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="margin-right: 20px;">792 N</div> <div style="margin-left: 20px;">400 N</div> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="margin-right: 20px;">632 N</div> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="margin-right: 20px;">100 N</div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; margin-top: 10px;"> <hr style="width: 100%;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>
<p>E.</p> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="margin-right: 20px;">550 N</div> <div style="margin-left: 20px;">1563 N</div> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="margin-right: 20px;">750 N</div> </div> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="margin-right: 20px;">250 N</div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; margin-top: 10px;"> <hr style="width: 100%;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>	<p>F.</p> <div style="display: flex; align-items: center; margin-bottom: 10px;"> <div style="margin-right: 20px;">987,256 N</div> <div style="margin-left: 20px;">993,267 N</div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; margin-top: 10px;"> <hr style="width: 100%;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>

Calculating Net Forces

Interpret each drawing of forces on the box. Calculate and write the resulting net force on the blank below the box (make sure to include the correct unit of measure). On the next blank, write the word balanced or unbalanced and circle the arrow for the direction of the resulting net force.

<p>1.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;">100 N →</div> <div style="border: 1px solid black; width: 60px; height: 60px; margin-right: 20px;"></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">50 N ←</div> <div style="margin-bottom: 5px;">75 N ←</div> </div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <hr style="width: 100px; border: 0.5px solid black;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>	<p>2.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;">545 N →</div> <div style="margin-right: 20px;">732 N →</div> <div style="border: 1px solid black; width: 60px; height: 60px; margin-right: 20px;"></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">732 N ←</div> <div style="margin-bottom: 5px;">545 N ←</div> </div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <hr style="width: 100px; border: 0.5px solid black;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>
<p>3.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;">61 N →</div> <div style="border: 1px solid black; width: 60px; height: 60px; margin-right: 20px;"></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">61 N ←</div> <div style="margin-bottom: 5px;">192 N ←</div> </div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <hr style="width: 100px; border: 0.5px solid black;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>	<p>4.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;">1231 N →</div> <div style="margin-right: 20px;">562 N →</div> <div style="border: 1px solid black; width: 60px; height: 60px; margin-right: 20px;"></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">489 N ←</div> <div style="margin-bottom: 5px;">956 N ←</div> </div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <hr style="width: 100px; border: 0.5px solid black;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>
<p>5.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;">653 N →</div> <div style="margin-right: 20px;">352 N →</div> <div style="border: 1px solid black; width: 60px; height: 60px; margin-right: 20px;"></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">1000 N ←</div> </div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <hr style="width: 100px; border: 0.5px solid black;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>	<p>6.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;">8732 N →</div> <div style="border: 1px solid black; width: 60px; height: 60px; margin-right: 20px;"></div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <hr style="width: 100px; border: 0.5px solid black;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>
<p>7.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;">577 N →</div> <div style="border: 1px solid black; width: 60px; height: 60px; margin-right: 20px;"></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">2957 N ←</div> </div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <hr style="width: 100px; border: 0.5px solid black;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>	<p>8.</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;">83 N →</div> <div style="border: 1px solid black; width: 60px; height: 60px; margin-right: 20px;"></div> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">96 N ←</div> </div> </div> <p>Net Force _____</p> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <hr style="width: 100px; border: 0.5px solid black;"/> <div style="margin: 0 10px;">→</div> <div style="margin: 0 10px;">←</div> </div>

Calculating Net Forces - Answer Key

Examples

- A. 225 Newtons (N) - unbalanced - to the right
- B. 75 N – unbalanced – to the left
- C. 0 N – balanced – no direction
- D. 224 N – unbalanced – to the right
- E. 13 N – unbalanced – to the left
- F. 6011 N – unbalanced – to the left

Problems

- 1. 25 N – unbalanced – to the left
- 2. 0 N – balanced – no direction
- 3. 192 N – unbalanced – to the right
- 4. 348 N – unbalanced – to the right
- 5. 5 N – unbalanced – to the right
- 6. 8732 N – unbalanced – to the right
- 7. 2380 N – unbalanced – to the left
- 8. 13 N – unbalanced – to the left