

# Balance Scales

## Advanced — ANSWER KEY

Bags on BOTH pans. Take bags off both sides.

**Think:** If both pans have X, remove one X from each side — the scale still balances.

1. How heavy is the bag? Find X so the scale balances.

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| <p>1)</p> <div style="display: flex; align-items: center; justify-content: center; margin: 10px 0;"> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;"><math>X + X + X + X + 6</math></div> <div style="margin: 0 10px;">=</div> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;">38</div> </div> <p>X = 8</p> | <p>2)</p> <div style="display: flex; align-items: center; justify-content: center; margin: 10px 0;"> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;"><math>X + X</math></div> <div style="margin: 0 10px;">=</div> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;"><math>X + 6</math></div> </div> <p>X = 6</p> |
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| <p>3)</p> <div style="display: flex; align-items: center; justify-content: center; margin: 10px 0;"> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;"><math>X + X + X + 7</math></div> <div style="margin: 0 10px;">=</div> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;"><math>X + 21</math></div> </div> <p>X = 7</p> | <p>4)</p> <div style="display: flex; align-items: center; justify-content: center; margin: 10px 0;"> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;"><math>X + X + X + 5</math></div> <div style="margin: 0 10px;">=</div> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;">11</div> </div> <p>X = 2</p> |
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| <p>5)</p> <div style="display: flex; align-items: center; justify-content: center; margin: 10px 0;"> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;"><math>X + X + X + 2</math></div> <div style="margin: 0 10px;">=</div> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;"><math>X + 26</math></div> </div> <p>X = 12</p> | <p>6)</p> <div style="display: flex; align-items: center; justify-content: center; margin: 10px 0;"> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;"><math>X + X + 8</math></div> <div style="margin: 0 10px;">=</div> <div style="border: 1px solid black; padding: 5px; margin: 0 10px;"><math>X + 12</math></div> </div> <p>X = 4</p> |
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