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<p>QUESTION</p> <p>1. A person is standing on a platform. A train is moving past them. The person on the platform sees a ball being thrown from the train. The ball is moving horizontally relative to the train. What path does the ball appear to follow to the person on the platform?</p>			
<p>ANSWER</p> <p>The ball appears to follow a parabolic path to the person on the platform. This is because the ball is moving horizontally relative to the train, but the train is moving relative to the platform. The combination of these two motions results in a parabolic path as seen from the platform.</p>			
<p>QUESTION</p> <p>2. A person is standing on a platform. A train is moving past them. The person on the platform sees a ball being thrown from the train. The ball is moving vertically relative to the train. What path does the ball appear to follow to the person on the platform?</p>			
<p>ANSWER</p> <p>The ball appears to follow a parabolic path to the person on the platform. This is because the ball is moving vertically relative to the train, but the train is moving relative to the platform. The combination of these two motions results in a parabolic path as seen from the platform.</p>			
<p>QUESTION</p> <p>3. A person is standing on a platform. A train is moving past them. The person on the platform sees a ball being thrown from the train. The ball is moving horizontally relative to the train. What path does the ball appear to follow to the person on the train?</p>			
<p>ANSWER</p> <p>The ball appears to follow a straight horizontal path to the person on the train. This is because the ball is moving horizontally relative to the train, and the person on the train is moving with the train. Therefore, the ball's motion is purely horizontal relative to the train.</p>			
<p>QUESTION</p> <p>4. A person is standing on a platform. A train is moving past them. The person on the platform sees a ball being thrown from the train. The ball is moving vertically relative to the train. What path does the ball appear to follow to the person on the train?</p>			
<p>ANSWER</p> <p>The ball appears to follow a straight vertical path to the person on the train. This is because the ball is moving vertically relative to the train, and the person on the train is moving with the train. Therefore, the ball's motion is purely vertical relative to the train.</p>			

PROBLEMS

1. A person is standing on a platform. A train is moving past them. The person on the platform sees a ball being thrown from the train. The ball is moving horizontally relative to the train. What path does the ball appear to follow to the person on the platform?

2. A person is standing on a platform. A train is moving past them. The person on the platform sees a ball being thrown from the train. The ball is moving vertically relative to the train. What path does the ball appear to follow to the person on the platform?

3. A person is standing on a platform. A train is moving past them. The person on the platform sees a ball being thrown from the train. The ball is moving horizontally relative to the train. What path does the ball appear to follow to the person on the train?

4. A person is standing on a platform. A train is moving past them. The person on the platform sees a ball being thrown from the train. The ball is moving vertically relative to the train. What path does the ball appear to follow to the person on the train?