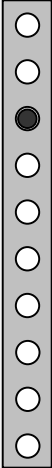
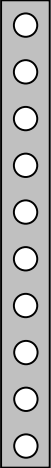





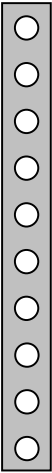
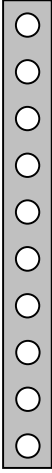
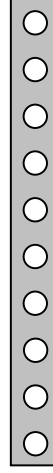
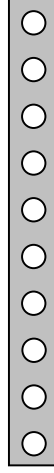
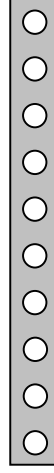
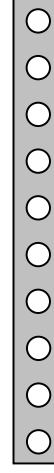
Beliefs about thinking:

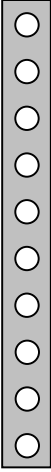


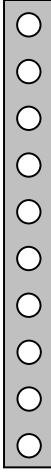
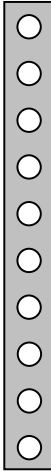

a pop quiz

How to fill in this quiz

Consider to what extent you hold the beliefs described in each row and colour in *one* circle to indicate your inclination. For example, if you were more inclined to view electrons as helpful fictions than as things we can observe directly, like toenails, you could indicate this by filling in a circle that is somewhat to the right of centre.

<p><i>Electrons are as real as toenails.</i></p>		<p><i>Electrons are fictions that help us to predict and explain things about electricity.</i></p>
<p>The mark someone gets for a group presentation should to some extent reflect the effort they have put into the activity.</p>		<p>The mark someone gets for a group presentation should reflect their ability.</p>
<p>I strive to develop my abilities within each task I am given.</p>		<p>I strive for positive evaluations of my innate abilities within each task I am given.</p>
<p>Being good at maths and science is no guarantee that you'll be good at chess.</p>		<p>A good chess player is likely to be very able at maths and science.</p>
<p>When revising for module exams, I try to measure my progress against the intended learning outcomes of that module.</p>		<p>When revising for module exams, I try to measure my progress against the final grade criteria.</p>

<p>I am brighter now than I was when I was fourteen.</p>		<p>I was as smart when I was fourteen as I am now.</p>
<p>Intelligence is mutable and can be increased through learning.</p>		<p>Intelligence is something you're born with. You've either got it or you haven't.</p>
<p>The ability of the UK population to speak a foreign language would increase markedly with better teaching.</p>		<p>The UK government can't do much about the inability of the population to speak foreign languages. Some people just don't have a talent for languages.</p>
<p>A physics professor is no more likely to have clever children than any other person.</p>		<p>The children of physics professors are likely to be cleverer than average.</p>
<p>When answering clicker questions, I don't mind making mistakes as long as I learn from them.</p>		<p>When answering clicker questions, I feel uncomfortable when I make mistakes even though no one else knows which answer I have chosen.</p>
<p>Physics workshops are about mastery and provide me with an opportunity to develop my problem-solving skills.</p>		<p>Workshops are about displaying ability and are an opportunity for me to demonstrate my problem-solving skills.</p>

<p>If I was taking the theory part of the driving test, I would be happy as long as I passed.</p>		<p>If I was taking the theory part of the driving test, I would not be satisfied with a mark less than 100%.</p>
<p>In a group tutorial, I don't mind being the one writing on the whiteboard even if I'm not sure of the solution.</p>		<p>In a group tutorial, I will try to blend into the background unless I'm sure of the solution.</p>
<p>In problem-solving exercises, I like to be seen as versatile.</p>		<p>In problem-solving exercises, I like to be seen as rigorous.</p>
<p>I like to find my own way through problems. My methods sometimes differ from the model solutions we are given.</p>		<p>I like to study worked examples. My answers to problems are often very similar to the model answers we are given.</p>
<p>I would enjoy labs more if they were less prescriptive.</p>		<p>In labs, I get frustrated when the instructions are not clear.</p>
<p>When learning a programming or scripting language, I like to start with some complete working examples and work backwards to an understanding of the syntax.</p>		<p>When learning a programming or scripting language, I like to study the syntax of the language before I begin and start with simple exercises before tackling my first large project.</p>

END OF QUIZ

How did you do?

Please don't take this quiz too seriously. The results will at best be indicative rather than diagnostic.

If your answers tend to be more to the left hand side of the page, this indicates you are **Learning-Oriented** in your beliefs about thinking. *Learning-oriented students are situated learners – they strive to develop abilities within particular tasks. They believe that ability is a mutable, expandable repertoire developed through learning and mastery rather than an innate property of a person. Learning-oriented students will change their learning strategies in order to succeed.*

If your answers tend to be more to the right of the page, this indicates that you have **Performance-Oriented** habits of mind. *Performance-oriented students believe that their ability is fairly constant across different situations and contexts. They strive for positive evaluations of their performance as indicators of their innate ability and avoid giving evidence of inadequate ability. Performance-oriented students use a portfolio of strategies that have brought them success in the past.*

Changing your habits of thinking for PeerWise

Although it would be completely wrong to say that performance-orientation is better than learning-orientation or vice versa, the evidence suggests that **for the PeerWise exercise it is likely that a learning orientation will be more successful than a performance orientation**. The suggestion is therefore that the class will benefit if it collectively supports a shift towards learning-oriented thinking.

It is fair to assume that everyone in this workshop has 'intelligence-in-practice'. People who are intelligent-in-practice:

- Believe they have the right (and the obligation) to understand things and make things work.
- Believe that problems can be analyzed, that solutions often come from such analysis, and that they are capable of that analysis.
- Have a toolkit of problem-analysis tools and good intuitions about when to use them.
- Know how to ask questions, seek help, and get enough information to solve problems.
- Have habits of mind that lead them to actively use the toolkit of analysis skills and the various strategies for acquiring information.

To help the shift towards learning oriented thinking, remember that everyone in the class is intelligent-in-practice and **allow yourself and others to be wrong**. In this exercise, flawed questions and answers will be rich sources of learning. Aim at mastery of 1A physics through engagement with the task rather than through the display of existing ability.

The dimensions of beliefs about thinking

For those who want a more detailed analysis, the sixteen quiz questions are arranged in four groups of four. The first four test the degree to which learning is situated within contexts, the second four probe beliefs about the mutability of ability, the third four tell us something about how much someone usually seeks to avoid giving evidence of inadequate ability and the final four are about learning strategies.