

Name _____

Print out and use this as a cover sheet for your hand-written answers.

1. State the two principle features that are synthesized when Special Relativity is combined with Quantum Mechanics and give one important consequence of each in particle physics.
[7.1 Space-Time Revisited]
2. Using Feynman diagrams to help you, explain how particle physics accounts for the idea of force between particles.
[7.2 Particles and Force-Fields]
3. Using the basic drawing rules of QED and labelling axes and world-lines, draw *two* possible Feynman diagrams that would complete the following picture, representing an electron and a positron interacting with one another via electromagnetic force. Note: you can bend the world-lines to make them fit.
[7.1 Space-Time Revisited, 7.2 Particles and Force-Fields]

