<table>
<tr><th>Question number</th><th>Answer</th><th>Notes</th><th>Marks</th></tr>
<tr><td>3 (a)</td><td>minimum of three straight arrows for different particles (with different lengths);

arrows in different directions;</td><td>judge by eye
arrows need not be attached to particles but it should be clear which particle they refer to</td><td>2</td></tr>
<tr><td>(b)</td><td>any three from:
MP1. particles collide/impact/eq;
MP2. with sides/walls of container;
MP3. idea that force is produced;

MP4. idea of pressure as force on an area;</td><td>allow
hit for collide

allow particle changes momentum
p = F/A</td><td>3</td></tr>
<tr><td>(c)</td><td>idea that pressure increases/eq;</td><td></td><td>1</td></tr>
<tr><td>(d)</td><td><table><tr><th>Statement</th><th>Tick ( )</th></tr><tr><td>the gas particles get bigger</td><td></td></tr><tr><td>the mass of gas particles stays the same</td><td>✓</td></tr><tr><td>the gas particles move faster</td><td>✓</td></tr><tr><td>the average distance between gas particles increases</td><td>✓</td></tr><tr><td>the temperature of the gas decreases</td><td></td></tr></table>
one mark for each correct;;;
if 4 ticks then max mark is 2
if 5 ticks then zero marks</td><td></td><td>3</td></tr>
<tr><td></td><td></td><td>total marks = 9</td><td></td></tr>
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