

HALF LIFE AND ACTIVITY



<p>1 A radioactive source has a half life of 4 hours. The initial activity of the source is 256 Bq. Find the activity 24 hours later.</p> <p>4 Bq</p>	<p>2 A radioactive source has a half life of 10 minutes. At 9:00am the activity is 1024 Bq. Find the activity at 9:30am</p> <p>128 Bq</p>	<p>3 A radioactive source has a half life of 20 years. If the activity of the source is 512 Bq find the activity after 100 years</p> <p>16 Bq</p>
<p>4 A radioactive source's activity is 128 k Bq. 50 minutes later it has an activity of 4 kBq. Determine the half life of the substance.</p> <p>10 mins</p>	<p>5 A radioactive source's activity is 32 Bq. 4 hours later it has an activity of 2 Bq. Determine the half life of the source.</p> <p>1 hour</p>	<p>6 What is meant by the term <i>half life</i> ?</p>
<p>7 A hospital radioactive source has a half life of 8 hours. The source has an activity of 512 MBq at 9am. What will be its activity at 9 am the next day?</p> <p>64MBq</p>	<p>8 A radioactive source's half life is 20 minutes. At 10am it has an activity of 2048 kBq. What will be its activity at 12 noon?</p> <p>32 kBq</p>	<p>9 A radioactive source has a half life of 5 seconds. How many seconds will it take for the activity to fall by $\frac{1}{8}$ th ?</p> <p>15 s</p>