

21. A charge  $-5q$  is a distance  $2d$  from  $P$ , a charge  $-5q$  is a distance  $d$  from  $P$ , and two charges  $+5q$  are each a distance  $d$  from  $P$ , so the electric potential at  $P$  is

$$V = \frac{q}{4\pi\epsilon_0} \left[ -\frac{5}{2d} - \frac{5}{d} + \frac{5}{d} + \frac{5}{d} \right] = \frac{5q}{8\pi\epsilon_0} .$$

The zero of the electric potential was taken to be at infinity.