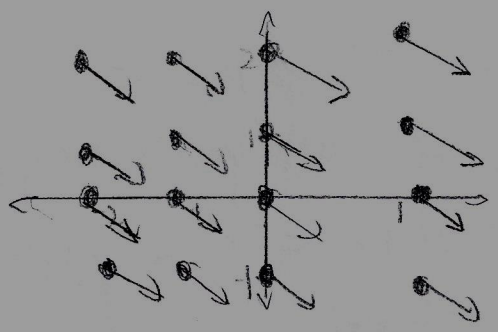
16.1 homework 1, 3, 5, 7, 9, 11, 13, 15, 17, 21, 23, 25, 29, 31

① $F(x,y) = 0.3i - 0.4j = \langle 0.3, -0.4 \rangle$

$F(0,0) = \langle 0.3, -0.4 \rangle$ $\quad \langle 0.3, -0.4 \rangle$

$F(-1,2) = \langle 0.3, -0.4 \rangle$ $\quad$ for $x \wedge y$.



③ $F(x,y) = -\frac{1}{2}i + (y-x)j$

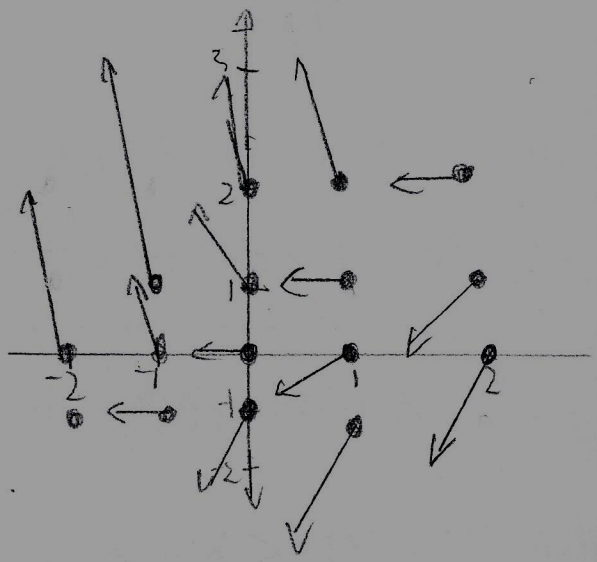
$F(y,y) = \langle -\frac{1}{2}, y-y \rangle$

$F(0,0) = \langle -\frac{1}{2}, 0 \rangle$ $\quad F(0,-1) = \langle -\frac{1}{2}, -1 \rangle$

$F(1,1) = \langle -\frac{1}{2}, 0 \rangle$ $\quad F(-1,1) = \langle -\frac{1}{2}, 2 \rangle$

$F(-1,-1) = \langle -\frac{1}{2}, 0 \rangle$ $\quad F(1,-1) = \langle -\frac{1}{2}, -2 \rangle$

$F(0,1) = \langle -\frac{1}{2}, 1 \rangle$ $\quad F(1,2) = \langle -\frac{1}{2}, 1 \rangle$



⑤ $F(x,y) = \frac{yi + xj}{\sqrt{x^2+y^2}} = \left\langle \frac{y}{\sqrt{x^2+y^2}}, \frac{x}{\sqrt{x^2+y^2}} \right\rangle$

$f(0,1) = \langle 1, 0 \rangle$ $\quad f(1,0) = \langle 0, 1 \rangle$ $\quad f(0,-1) = \langle -1, 0 \rangle$

$f(-1,0) = \langle 0, -1 \rangle$

$f(1,1) = \left\langle \frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}} \right\rangle$ $\quad f(-1,-1) = \left\langle \frac{-1}{\sqrt{2}}, \frac{-1}{\sqrt{2}} \right\rangle$

$f(1,-1) = \left\langle \frac{-1}{\sqrt{2}}, \frac{1}{\sqrt{2}} \right\rangle$ $\quad f(-1,1) = \left\langle \frac{-1}{\sqrt{2}}, \frac{1}{\sqrt{2}} \right\rangle$

$f(0,2) = \langle 1, 0 \rangle$ $\quad f(2,0) = \langle 0, 1 \rangle$