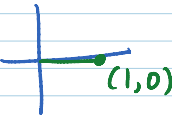
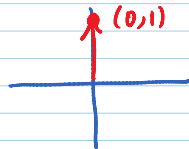
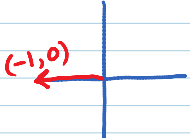
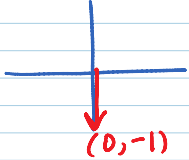


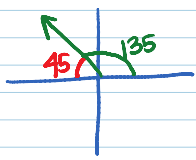
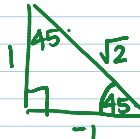
p. 870) 12-15, 24-30 even


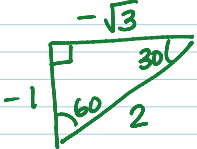
⑫  $\sin = 0$ $\csc = \text{UND}$
 $\cos = 1$ $\sec = 1$
 $\tan = 0$ $\cot = \text{UND}$

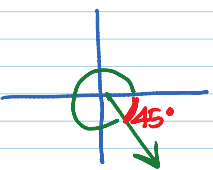
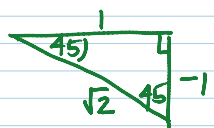
⑬  $\frac{\pi}{2} \times \frac{180}{\pi} = 90^\circ$
 $\sin = 1$ $\csc = 1$
 $\cos = 0$ $\sec = \text{UND}$
 $\tan = \text{UND}$ $\cot = 0$

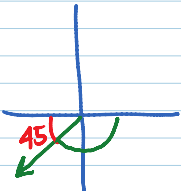
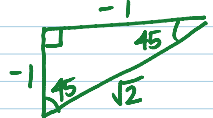
⑭  $\frac{540}{180} = 3$ $\sin = 0$ $\csc = \text{UND}$
 $\frac{-360}{180} = -2$ $\cos = -1$ $\sec = -1$
 $\tan = 0$ $\cot = \text{UND}$

⑮  $\frac{7\pi}{2} \times \frac{180}{\pi} = 630$
 $\frac{-360}{270} = -\frac{4}{3}$
 $\sin = -1$ $\csc = -1$
 $\cos = 0$ $\sec = \text{UND}$
 $\tan = \text{UND}$ $\cot = 0$

⑳  2ND QUAD: x is neg
y is positive
 $\sec 45 = \frac{\text{hyp}}{\text{adj}} = \frac{\sqrt{2}}{-1} = \boxed{-\sqrt{2}}$

㉑  3rd QUAD: x is neg
y is neg
 $\sin 30 = \frac{-1}{2} = \boxed{-\frac{1}{2}}$

㉒  $\frac{7\pi}{4} \cdot \frac{180}{\pi} = 315$
 4th QUAD: x is pos
y is neg
 $\cos 45 = \frac{1}{\sqrt{2}} = \boxed{\frac{\sqrt{2}}{2}}$

㉓  $-\frac{3\pi}{4} \cdot \frac{180}{\pi} = -135^\circ$
 $\tan 45^\circ = \frac{-1}{-1} = \boxed{1}$