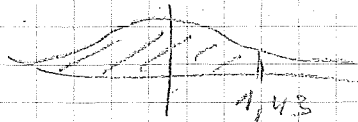


Act 16

1) $Z \sim N(0,1)$ a) Primitive = ???

Avec la calculatrice!!!

b) (i) $P(Z \leq 1,43)$



$\approx 0,9236$

calc: $\boxed{2nd} \rightarrow \boxed{Stat} \rightarrow \boxed{Dist}$
 $\rightarrow \boxed{NormalDist}$

(ii) $P(Z < 3,86) \approx 0,999943$

(iii) $P(Z < -0,97) \approx 0,1660$

$= 1 - P(Z \leq 0,97)$

$\stackrel{task}{=} 1 - 0,8340$

(iv) $P(0,56 \leq Z \leq 2,56) = P(X \leq 2,56) - P(X < 0,56)$

$\approx 0,2825$

(v) $P(0 \leq Z \leq 2,1) \approx 0,4821$

(vi) $\approx 0,6780$

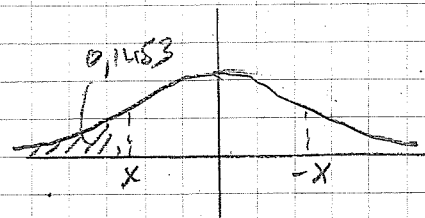
(vii) $\approx 0,1736$

(viii) $\approx 0,8998$

2) $P(0 \leq Z \leq x) = 0,4370 \Leftrightarrow P(Z \leq x) = 0,9370$

calc: $\boxed{invNormal}$ $\Leftrightarrow x = 1,5301$

3) $P(Z < x) = 0,1453$



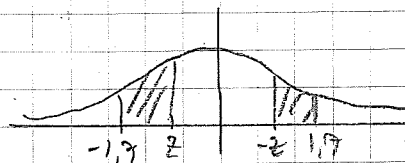
$= 1 - P(Z < -x)$

$= 1 - 0,1453 = 0,8547 \Leftrightarrow -x = 1,053 \Leftrightarrow x = -1,055$

calc: $x \approx -1,0568$

4) $P(-1,7 < Z < 2) = 0,0432$

$\Leftrightarrow P(Z < 2) - P(Z < -1,7) = 0,0432$



$\Leftrightarrow P(Z < -2) = -0,0432 + 0,8554 = 0,8122$

$\Leftrightarrow -z = 1,355 \Leftrightarrow z = -1,355$