





" 7DON WR D SDUHQW JXDUGLDQ RU RWK  
" &DOO  
" 9LVLW V DQGLHJR RUJ





$/g > U \cdot f \cdot y^{1/2} \quad y^3 g g \cdot g \cdot i^{1/2}$

,WèV LPSRUWDQW WR NQRZ WKDW

, DP D PDQGDWHG UHSRUWHU ZKLFK PHDQV ,èP UH  
QHJOHFW

:H ZLOO EH H[DPLQLQJ VH[XDO KHDOWK WKURXJK U

:H ZLOO EH OHDUQLQJ DQG XVLQJ DFFXUDWH VFLHQ

DQDWRP\ WKDW FRPHV GLUHFWO\ IURP WKH &DOLIR

JUDGH

:H ZLOO QRW EH GLVFXVVLQJ RXU SHUVRQDO YDOX

:H ZLOO HQVXUH D VDIH HQYLURQPHQW WKDW LV L

:H ZLOO IRFXV RQ TXHVWLRQV WKDW UHODWH WR

WR WDON WR \RXU SDUHQW JXDUGLDQ DW KRPH DE

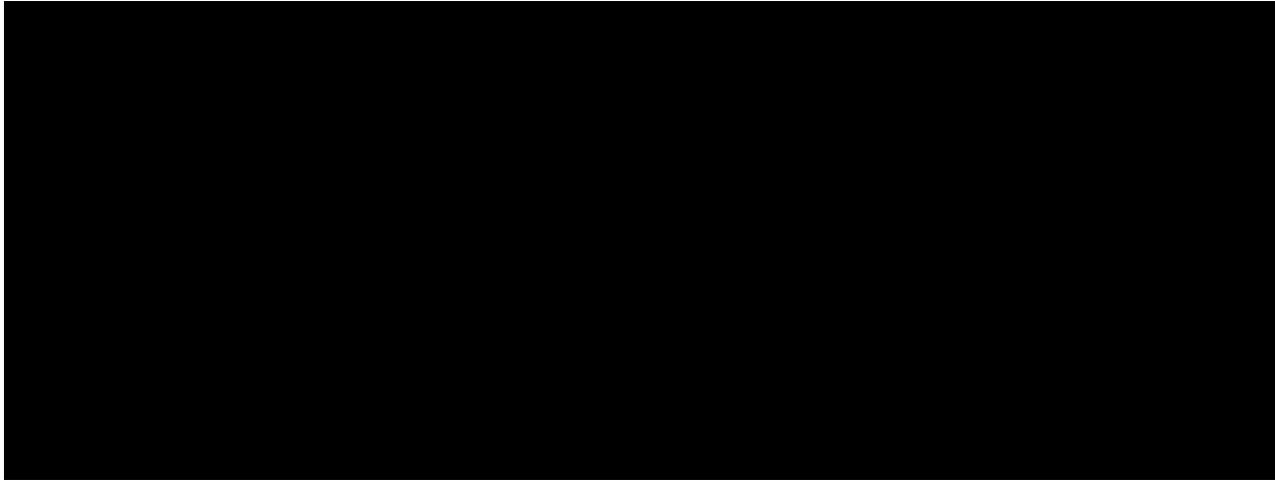
WR PDNLQJ FKRLFHV



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EHLQJ VH[XD

HQFH RI EHLQ

DO\ WUDQVPL

LQ D ODWHU

DQG KRZ WR

KHDOWK DQG SUHYHQW DQ XQSODQQHG SUHJ



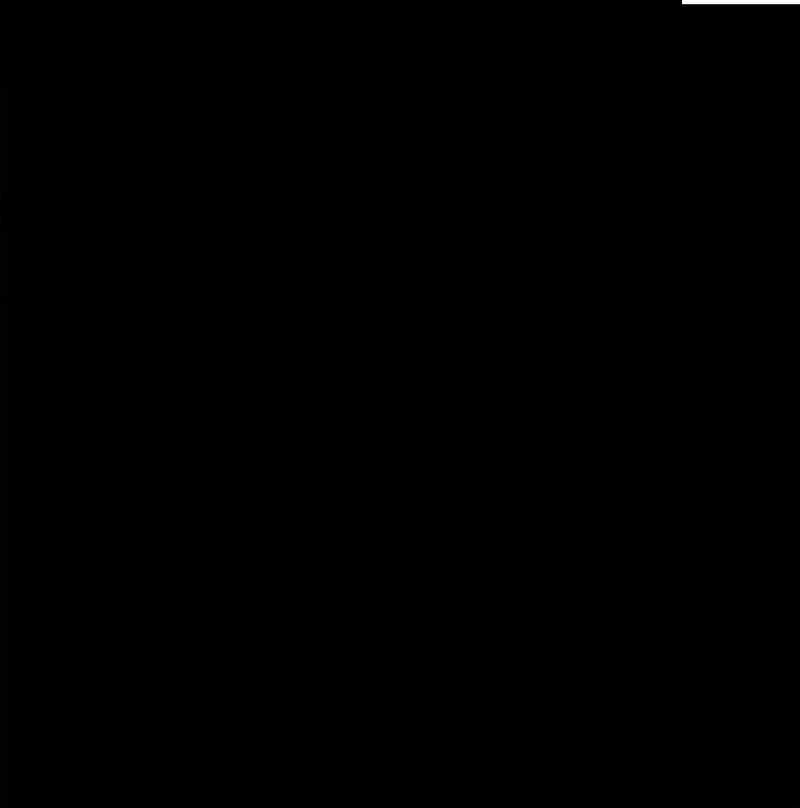
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V  
V  
L

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7HDFK  
6H[X  
+HDC



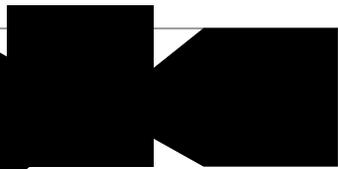
7 • > i 1/2 > 3 g 1/2 f t t g 3 g • i 1/2 / i g ¶ 1/2 " t 1/2 " • i 3 > U g

i f "



KDW LW ([DPSOHV  
V

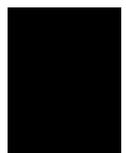
3UHVFULS  
QHHGHG"



W  
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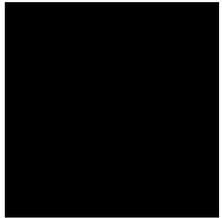
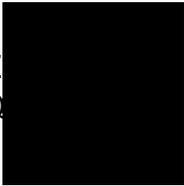
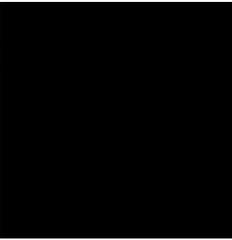
1R &DQ E  
SXUFKDVH  
ZLWKRXW  
SUHVFULS

WHUIHUHV  
LWK  
RYXODWLRQ  
DQG RU  
IHUWLLOL]DWLRQ



<HV5HT>DL  
GRFWRUè  
SUHVFULS

2WKHU RWKHU ZDKVH PHWKRO  
0HWKRGS HRSOH ~~Z~~EWLQHGFH  
WR DYRLG QG IHUWLLOL  
SUHJQDQF\



7HDFK  
6H[X  
+HDC



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ORUH  
(IIHFWI



\$EVLQHGFH  
LV WKH RQO\  
RQH WKDWèV

,8'V DQG ELUWK  
FRQWURO LPSODQWV  
DUH EHWWHU WKDQ

%XW ZKHQ  
FRPELQH V

IIHFWLYH

IIHFWLYH

W\SHV R  
GLIIHUHQW  
FRQWURO

&RQWUDFHSWL  
SDWFKHV DQ  
DUH

IIHFWLYH  
LQFUHDV  
)RU H[DPS

IIHFWLYH

,QWHUQDO  
FRQGRF 'LDSKUDJP

([WHUQDO  
FRQGRP V

(PHUJHQF\  
FRQWUDFHSWL

)HUWL &HUY  
DZDUHQHV V FDS 6SHUPLFL



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QHG  
VQHU  
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JR  
WUX

\RX  
HQW

IDFK  
6HX  
+HDC



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HU\ U  
HQQFH  
UVH

E\ /DZ LQ  
UVRQ ZLW  
D EDF\ FF

OFH PD  
FOXGLO  
RI VXS  
QGV SF  
WKH ED

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Q V  
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KLOG  
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7HDFK  
6H[X  
+HDC

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i μ g Đ g • Á f • y ¿ > • ¿ É • i Š > • • g \_





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$\hat{f} \approx \frac{1}{2} - \check{S}$  5H HFWRQ

” :ULWFXHVWLRQV \RX VWLOO KDYH DE

SUHYHQWLQJ DQ XQSODQQHG SUHJQD

” :ULWZLVK \RX KDYH IRU D VDIH DQG

Á, "•g¿ "••gUÁf"•

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62&,\$/ \$1' (&2120,& &216(48(1&(6 2) 7((1\$\*( &+./'%'(\$5,1\* 5LVNLQJ\_WKH )XWXUH  
1DWLRQDO\_\*HRJUDSKLF  
1XFOHXV 0HGLFDO 0HGLD  
7(' (G 7KH 6XUSULVLQJ (IIHFWV RI 3UHJQDQF\  
1HZSRUW \$FDGHP\ 7HHQ 3UHJQDQF\ DQG 0HQWDO +HDOWK  
7KH (FRQRPLVW  
&DOLIRUQLD V 6DIH 6XUUHQGHU %DE\ /DZ  
:HE0' \$EVWLQHGFH :KDW .W\_,V DQG +RZ ,W :RUNV  
&RQWUDFHSWLRQ 6WDW3HDUOV 1&%, %RRNVKHOI  
&RQGRP V %LUWK &RQWURO 7\SHV +RZ 7KH\ :RUN (IIHFWLYHQHV  
%LUWK &RQWURO )RUPV 2SWLRQV 5LVNV (IIHFWLYHQHV  
6SHUPLFLGH +RZ 7R 8VH %HQH WV 5LVNV (IIHFWLYHQHV  
&RQGRP V %LUWK &RQWURO 7\SHV +RZ 7KH\ :RUN (IIHFWLYHQHV  
&RQGRP V +.9 5LVN DQG 3UHYHQWLRQ \_ +,9 \$,'6 \_ &'&  
+RZ WR 8VH D 0DOH ([WHUQDO &RQGRP \_ &'&  
/HYRQRUJHVWUHO (PHUJHQF\ &RQWUDFHSWLRQ 3ODQ %  
)'\$ %LUWK &RQWURO \*XLGH

7HDFK  
6HX  
+HDC