

Pop Quiz 1

Repeat

periodic

Why for

some

D value

$$D = 0$$

eg

$$N = 4$$

$$D = .25$$

$$.50$$

$$.75$$

$$1.0$$

① Explain
~~Draw~~

STD
Sync

Book

②

EXPLAINING
Low $i_{out} \downarrow$
High $i_{out} \uparrow$

$$\eta \equiv$$

$$\frac{V_{out} I_{out}}{V_{in} I_{in}}$$

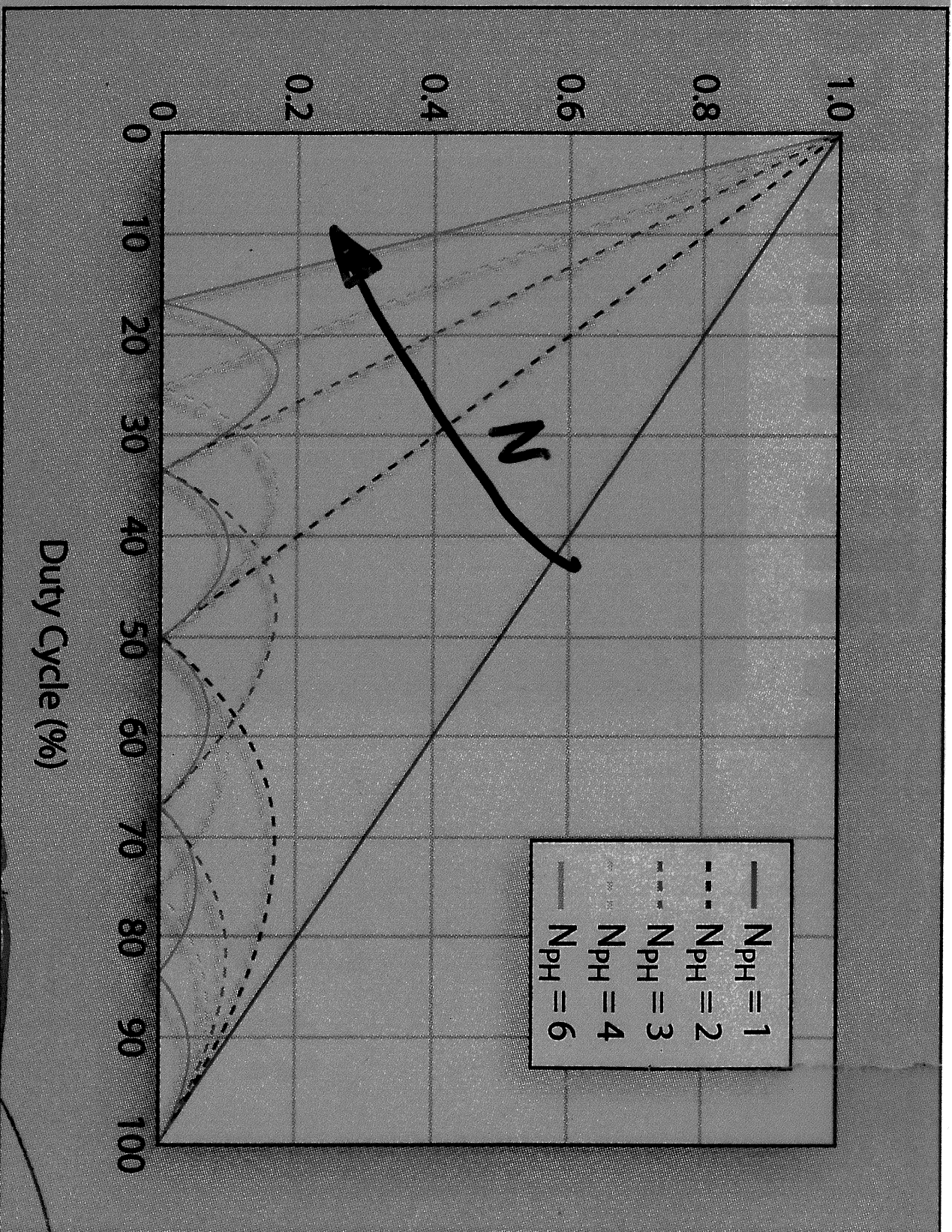
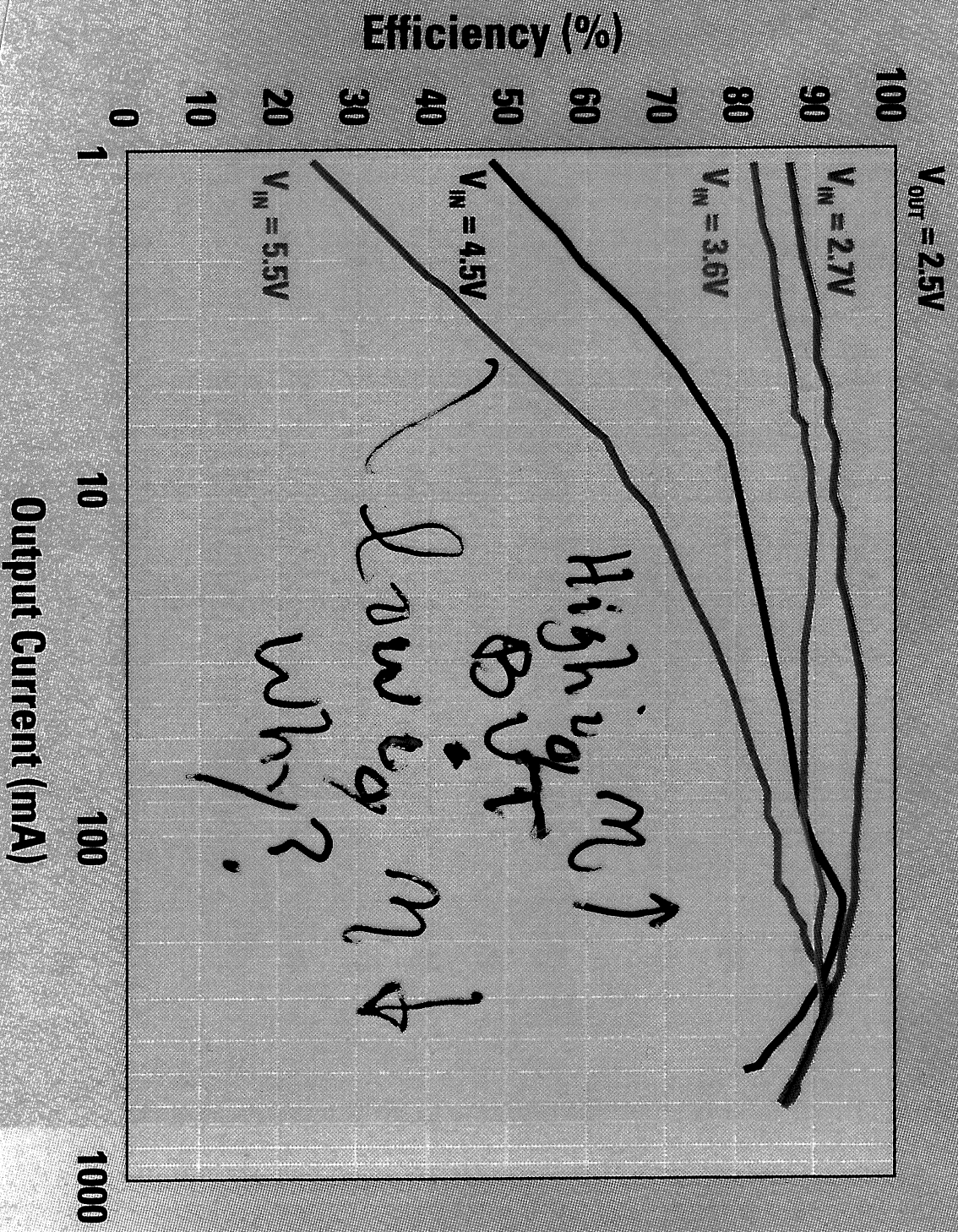


Fig. 3. This plot reveals that basic trend of the output ripple current cancellation factor decreasing with increasing numbers of phase channels for a given duty cycle.

ΔI_{out} is reduced by N choice but also by D choices $\Delta I_{out} (D)$ has zero periodic values

$$\eta(I_{out})$$

High Efficiency Across All Loads



>90% Efficiency Over Load Current

