ANSWER KEY - LABORATORY EXERCISE 17
CHARACTERISTICS OF MULTIPLICATIVE FEEDFORWARD CONTROL

2. FEEDFORWARD CONTROLLER SETUP

Feedforward tuning:

Tld	=	7.5
Tlg	=	10.2
Tdt	=	1.75

Feedback tuning:

Gain	=	1.0
Reset	=	10.8 minutes/repeat

Fuel Flow	28.0 KCFH	=	28%
Process Flow	300 GPM	=	75%
Ratio	(28/75)	=	0.3733
Ratio, converted to percent		=	37.33%
Primary controller output		=	37.33%
Primary controller output, after changing Kl to 2.0		=	18.67%
New Primary controller Gain		=	0.5

3. TESTING THE CONTROL LOOP

Is the response to load change OK?	Yes
Is the response to SP change OK?	Yes

At each step,..., response to load
change OK? Yes

At high process flow rate ...
response to SP change OK? Yes

Decrease process flow rate, one step at a time.

At each step, ... going unstable? No

Additive feedforward? Became unstable

Response as good as .... at 75% load? No