PROBLEM SET 2 ANSWERS

Level of Output and Income (GDP=DI) C+S	Consump. (C) Inc − S	Invest. (Ig)	Savings Inc − C	Agg. Expend. (AE) C + Ig	APC $\frac{C}{Inc}$	APS $\frac{S}{Inc}$	MPC $\frac{\Delta C}{\Delta Inc}$	MPS $\frac{\Delta S}{\Delta Inc}$
240	240 − (−4) = 244	12	-4	244 + 12 = 256	$\frac{244}{240}$ = 1.02	$\frac{-4}{240}$ = −.02	XXXXXXXXX	XXXXXXXX
260	260 − 0 = 260	12	0	260 + 12 = 272	$\frac{260}{260}$ = 1	$\frac{0}{260}$ = 0	$\frac{16}{20}$ = .8	$\frac{4}{20}$ = .2
280	276	12	280 − 276 = 4	276 + 12 = 288	$\frac{276}{280}$ = .986	$\frac{4}{280}$ = .014	$\frac{16}{20}$ = .8	$\frac{4}{20}$ = .2
300	300 − 8 = 292	12	8	292 + 12 = 304	$\frac{292}{300}$ = .973	$\frac{8}{300}$ = .027	$\frac{16}{20}$ = .8	$\frac{4}{20}$ = .2
308 + 12 = 320	308	12	12	308 + 12 = 320	$\frac{308}{320}$ = .963	$\frac{12}{320}$ = .037	$\frac{16}{20}$ = .8	$\frac{4}{20}$ = .2
324 + 16 = 340	324	12	16	324 + 12 = 336	$\frac{324}{340}$ = .953	$\frac{16}{340}$ = .047	$\frac{16}{20}$ = .8	$\frac{4}{20}$ = .2
360	360 − 20 = 340	12	20	340 + 12 = 352	$\frac{340}{360}$ = .944	$\frac{20}{360}$ = .056	$\frac{16}{20}$ = .8	$\frac{4}{20}$ = .2
380	356	12	380 − 356 = 24	356 + 12 = 368	$\frac{356}{380}$ = .937	$\frac{24}{360}$ = .063	$\frac{16}{20}$ = .8	$\frac{4}{20}$ = .2
400	400 − 28 = 372	12	28	372 + 12 = 384	$\frac{372}{400}$ = .93	$\frac{28}{400}$ = .07	$\frac{16}{20}$ = .8	$\frac{4}{20}$ = .2

A. SEE CHART

B. BREAK EVEN INCOME OCCURS WHERE C=AE OR WHERE S = 0.
IN THIS CASE IT OCCURS AT INCOME LEVEL $260.

C. EQUILIBRIUM GDP OCCURS WHERE AE = GDP OR IN THIS CASE AT A GDP OF $320

D. A ↓ IN THE INTEREST RATE WILL CAUSE I_g TO INCREASE (FROM 12 to 16). THE ↑ IN I_g WILL CAUSE AE TO ↑ AND THE NEW EQUILIBRIUM WOULD BE AT GDP = $340

E. $$MULT = \frac{1}{1-MPC} = \frac{1}{MPS} = \frac{1}{1-.8} = \frac{1}{.2} = 5$$

OR USING THE EQUILIBRIUM FROM PARTS C AND D

$$MULT = \frac{\Delta GDP}{\Delta AE} = \frac{(340-320)}{(16-12)} = \frac{20}{4} = 5$$

IN THIS CASE THE Δ IN AE IS = TO THE Δ in I_g

D.

Int. rate	I_g
1%	26
2%	24
3	22
4	20
5	18
6	16
7	14
8	12
9	10
10	8
⋮	⋮
13	2