Non-GAAP Adjustments, Operating Income (Loss) Before Amortization and Impairment (\$ millions)

2018	Education	Broadcasting	Manufacturing	Other Businesses	Corporate Office	Total
Operating Income (Loss)	\$97	\$211	\$29	(\$37)	(\$53)	\$246
Add: Amortization / Impairment	9	6	25	16	-	56
Operating Income (Loss) before Amortization / Impairment	\$106	\$216	\$54	(\$22)	(\$53)	\$302

2017	Education	Broadcasting	Manufacturing	Other Businesses	Corporate Office	Total
Operating Income (Loss)	\$78	\$139	\$15	(\$37)	(\$59)	\$136
Add: Amortization / Impairment	5	6	31	8	-	51
<b>Operating Income (Loss) before</b> <b>Amortization / Impairment</b>	\$83	\$146	\$46	(\$29)	(\$59)	\$187

The sum of certain amounts may not equal the total due to rounding

Non-GAAP Adjustments, Operating Income (Loss) Before Amortization (\$ millions)

Q1 2019	Education	Broadcasting	Manufacturing	Other Businesses	Corporate Office	Total
Operating Income (Loss)	\$26	\$36	\$3	(\$10)	(\$14)	\$40
Add: Amortization	4	1	7	2	-	13
Operating Income (Loss) before Amortization	\$29	\$37	\$10	(\$9)	(\$14)	\$53

Q1 2018	Education	Broadcasting	Manufacturing	Other Businesses	Corporate Office	Total
Operating Income (Loss)	\$23	\$41	\$9	(\$14)	(\$14)	\$44
Add: Amortization	1	1	6	2	-	10
Operating Income (Loss) before Amortization	\$24	\$42	\$15	(\$12)	(\$14)	\$55

The sum of certain amounts may not equal the total due to rounding

Non-GAAP Adjustments, Operating Income (Loss) Before Amortization / Impairment (\$ millions)

Broadcasting	2016	2015
Operating Income	\$203	\$167
Add: Amortization	0	0
Operating Income before Amortization	\$203	\$167
Education	2016	2015
Operating Income (Loss)	\$95	(\$218)
Add: Amortization / Impairment	8	262
<b>Operating Income before Amortization / Impairment</b>	\$103	\$44
Manufacturing	2016	2015
Operating Income	\$13	\$6
Add: Amortization	12	6
Operating Income before Amortization	\$25	\$13

The sum of certain amounts may not equal the total due to rounding

 $\mathrm{G}\mathrm{H}$  graham holdings

Non-GAAP Adjustments, Operating Loss Before Amortization/Impairment (\$ millions)

Kaplan Corporate and Other	2018	2017	2016	2015	Q1 2019	Q1 2018
Operating Loss	(\$36)	(\$30)	(\$29)	(\$344)	(\$11)	(\$9)
Add: Amortization / Impairment	9	5	8	262	4	1
Operating Loss before Amortization / Impairment	(\$27)	(\$25)	(\$22)	(\$82)	(\$8)	(\$8)

The sum of certain amounts may not equal the total due to rounding

