NVIDIA vs AMD GPU Comparison

	GP100	GP102	GV100	Vega 10	Polaris 10	Fiji
	Tesla P100	GeForce TitanX	Tesla V100	Radeon RX Vega64 (Liquid Cooled)	Radeon RX 480	Radeon R9 Fury X
Architecture	Pascal	Pascal	Volta	GCN5	GCN4	GCN3
Year	2016	2017	2017	2017	2016	2015
FP32 Cores (FMAD)	3584	3584	5120	4096	2304	4096
SMs/CUs	56	28	80	64	36	64
Clock Base (Boost)	1.33 GHz (1.48 GHz)	1.42 GHz (1.53 GHz)	(1.46 GHz)	1.41 GHz (1.67 GHz)	1.12 GHz (1.27 GHz)	1.05 GHz
GFLOPS (FP32) @base clock	9.52 (10.61) TFLOPS	8.23 (10.97) TFLOPS	(14.97) TFLOPS	10.22 (12.66) TFLOPS	5.16 (5.83) TFLOPS	8.60 TFLOPS
FP64 FMAD	1792	112	2560	256	144	256
GFLOPS (FP64) @base clock	4.76 (5.3) TFLOPS	317 (343) GFLOPS	(7.49) TFLOPS	639 (792) GFLOPS	323 (365) GFLOPS	537.6 GFLOPS
FP16 FMAD	7168	56	40960	8192	2304	4096
GFLOPS (FP16) @base clock	19 (21.2) TFLOPS	158 (172) GFLOPS	(120) TFLOPS	20.4 (25.3) TFLOPS	5.16 (5.83) TFLOPS	8.60 TFLOPS
Register Files	14 MB	7 MB	20 MB	16 MB	9 MB	16 MB
Shared Memory (/L1 Cache)	3.5 MB	2.6 MB	10 MB	4 MB	2.3 MB	4 MB
L2 Cache	4 MB	3 MB	6 MB	4 MB	2 MB	2 MB
Memory Bandwidth	720 GB/sec	480 GB/sec	900 GB/sec	484 GB/sec	256 GB/sec	512 GB/sec
TDP (Thermal Design Power)	300W	250W	300W	345W	150W	275W
Texture Units	224	224	320	256	144	256
ROP (Rendering Output Pipeline)		96		64	32	64
Transistors	15.3B	12B	21B	12.5B	5.7B	8.9B
Die Size	610mm2	471mm2	815mm2	486mm2	232mm2	596mm2
Process Technology	16 nm	16 nm	12 nm	14 nm	14 nm	28 nm