

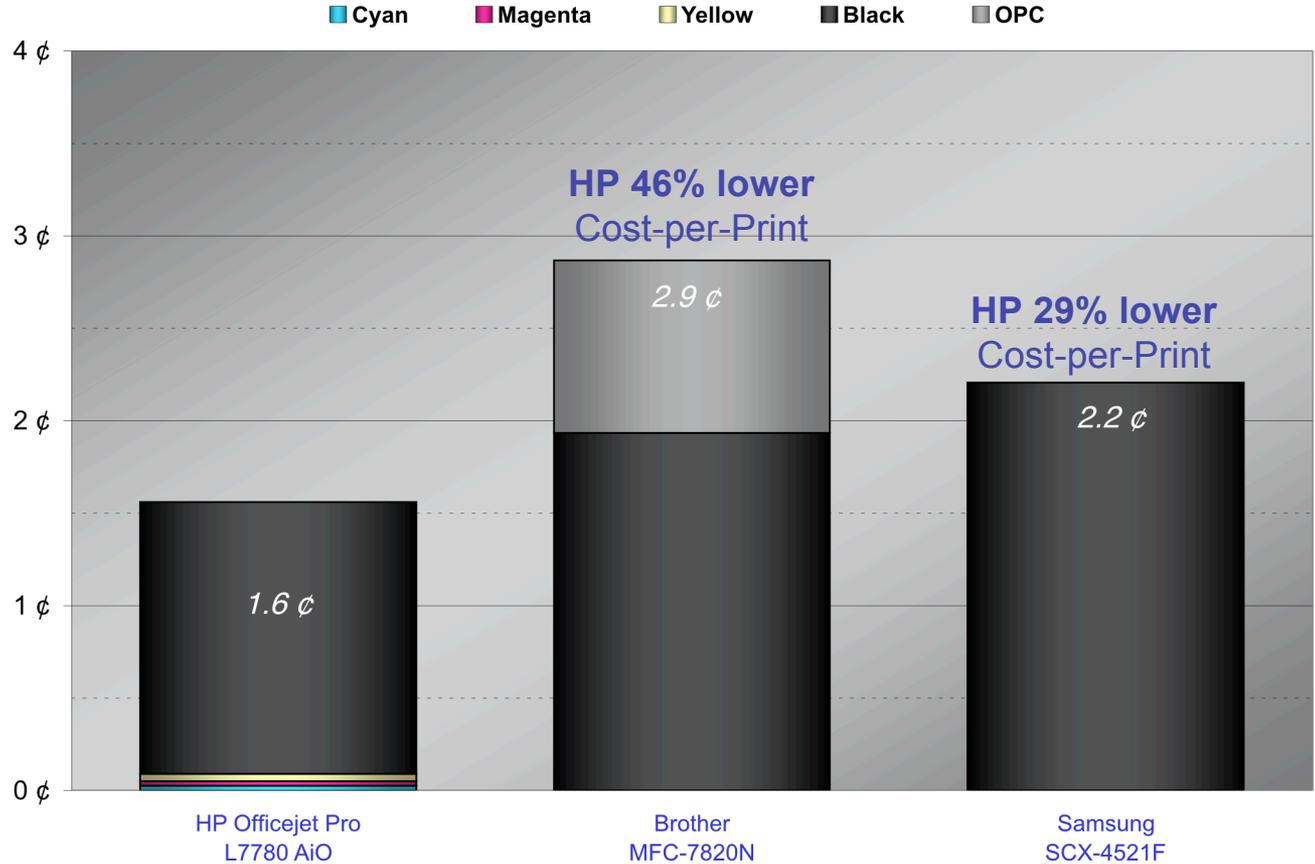
Cost-per-Print: *U.S. cents* –

HP Officejet Pro L7580/7680/7780 Color Inkjet AiO, Brother MFC-7820N, and Samsung SCX-4521F

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COST-PER-PRINT TESTED



ISO/IEC Standard Test Page



All testing performed using default driver settings
 Cost-per-Print includes high-capacity ink/toner cartridges
 and user-replaceable components costs where applicable
 Pricing per Current Analysis, 15 Jan 07
 Not all HP Officejet Pro L7580/7680/7780 models available in all countries or regions

Independent testing by *SpencerLab* Digital Color Laboratory was commissioned by Hewlett-Packard Company 0307



Cost-per-Print *Methodology:* HP Officejet Pro L7580/7680/7780 Color Inkjet AiO, Brother MFC-7820N, and Samsung SCX-4521F

◦ Determine Ink Cartridge Yields – the average number of prints-per-cartridge for each cartridge

- Printer Model: testing performed on an HP Officejet Pro L7780 Color Inkjet All-in-One
- Test document from ISO/IEC 19752 International Standard for determining monochrome toner yield
 - *Standard Test Page version 4.0.1.*, printed semi-continuously with stops for paper replenishment, overnight, etc.
- Print Modes: plain paper default via Adobe Reader 7.0.8
- Test High Capacity OEM inks/toner where available
 - HP #88 Large Black, Cyan, Magenta and Yellow ink cartridges
 - Brother (TN-350) toner cartridge
 - Samsung (SCX-4521D3) toner cartridge
- Cartridges judged to be at "end-of-life" when an out of ink/toner signal is displayed on printer control panel/driver; otherwise when test prints show visible defects (*fade*) attributable to toner supply
- Testing is repeated over multiple cartridges to assure consistency

◦ Calculate ink component cost-per-print

- Divide each cartridge cost by the corresponding cartridge yield (average prints-per-cartridge)

◦ Calculate other user-replaceable component pro-rata costs

- Brother MFC-7820N contains user-replaceable OPC Drum Cartridge; therefore, these component costs are included in total Cost-per-Print
 - *OPC Drum Cartridge contribution to total Cost-per-Print is based upon manufacturer-rated yield*
- Samsung SCX-4521F contains no user-replaceable components
- The HP Officejet Pro L7580/7680/7780 printheads are designed for the life of the printer; therefore, although user-replaceable, it is not included in the total Cost-per-Print

◦ Ink/Toner and User-replaceable Component Prices

COMPONENTS COST		CYAN	MAGENTA	YELLOW	BLACK
HP Pro L7780 AiO	<i>Ink</i>	\$ 26.37	\$ 26.62	\$ 26.65	\$ 34.74
Brother MFC-7820N	<i>Toner</i>	—	—	—	\$ 61.33
	<i>OPC</i>	\$ 111.99			
Samsung SCX-4521F	<i>Toner</i>	—	—	—	\$ 84.98

Pricing per Current Analysis 15Jan07

◦ Sum per-print component costs to obtain total Cost-per-Print for the test document

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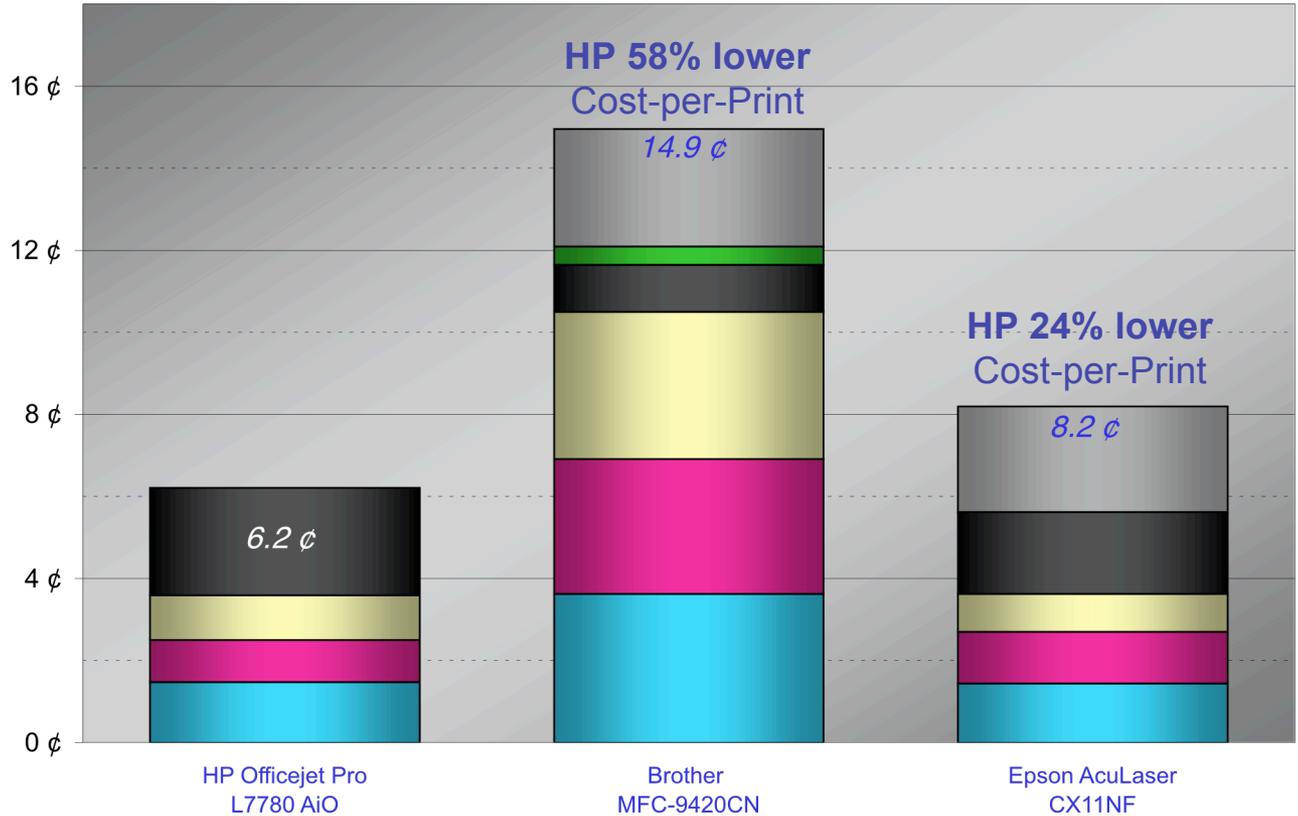
HP Officejet Pro L7580/7680/7780 Color Inkjet AiO, Brother MFC-7820N, and Samsung SCX-4521F

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COST-PER-PRINT TESTED



MIXED TEXT & GRAPHICS

■ Cyan ■ Magenta ■ Yellow ■ Black ■ Waste Toner ■ OPC/Fuser



All testing performed using default driver settings
Cost-per-Print includes high-capacity ink/toner cartridges
and user-replaceable components costs where applicable

Pricing per Current Analysis, 15 Jan 07

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Cost-per-Print Methodology: HP Officejet Pro L7580/7680/7780 Color Inkjet AiO, Brother MFC-7820N, and Samsung SCX-4521F

◦ Determine Ink Cartridge Yields – the average number of prints-per-cartridge for each cartridge

- Printer Model: testing performed on an Officejet Pro L7780 Color Inkjet All-in-One
- Test document from the *SpencerLab* Printer Test Suite
 - *Mixed Text & Graphics, Color Newsletter, printed semi-continuously with stops for paper replenishment, overnight, etc.*
- Print Modes: plain paper default via Adobe Reader 7.0.8
- Test High Capacity OEM inks/toner where available
 - *HP #88 Large Black, Cyan, Magenta and Yellow ink cartridges*
 - *Brother Black (TN-04BK), Cyan (TN-04C), Magenta (TN-04M), and Yellow (TN-04Y) toner cartridges*
 - *Epson Black (0190), and High Capacity Cyan (0189), Magenta (0188), and Yellow (0187) toner cartridges*
- Cartridges judged to be at "end-of-life" when an out of ink/toner signal is displayed on printer control panel/driver
- Testing is repeated over multiple cartridges to assure consistency

◦ Calculate ink component cost-per-print

- Divide each cartridge cost by the corresponding cartridge yield (average prints-per-cartridge)

◦ Calculate other user-replaceable component pro-rata costs

- Brother MFC-9420CN contains user-replaceable OPC Drum Cartridge, Fuser Unit, and Waste Toner Bottle; therefore, these component costs are included in total Cost-per-Print
 - *Waste Toner Bottle, OPC Drum Cartridge and Fuser Unit contributions to total Cost-per-Print are based upon manufacturer-rated yield*
- Epson AcuLaser CX11NF contains user-replaceable Photoconductor Unit; therefore, these component costs are included in total Cost-per-Print
 - *Photoconductor Unit contributions to total Cost-per-Print are based upon manufacturer-rated yield*
- The HP Officejet Pro L7580/7680/7780 printheads are designed for the life of the printer; therefore, although user-replaceable, it is not included in the total Cost-per-Print

◦ Ink/Toner and User-replaceable Component Prices

COMPONENTS COST		CYAN	MAGENTA	YELLOW	BLACK
HP Pro L7780 AiO	<i>Ink</i>	\$ 26.37	\$ 26.62	\$ 26.65	\$ 34.74
Brother MFC-9420CN	<i>Toner</i>	\$ 150.01	\$ 150.01	\$ 150.01	\$ 153.60
	<i>Fuser Unit</i>	\$ 475.88			
	<i>OPC</i>	\$ 310.92			
	<i>Waste Toner</i>	\$ 13.31			
Epson AcuLaser CX11NF	<i>Toner</i>	\$ 117.88	\$ 117.88	\$ 117.88	\$ 79.84
	<i>OPC</i>	\$ 270.43			

Pricing per Current Analysis 15Jan07

◦ Sum per-print component costs to obtain total Cost-per-Print for the test document

