Special Integrals

Draw a line joining the correct answer to the question

$f(x)$	$\int f(x)dx$
$(3x+2)^3$	$\frac{1}{2}\sin(2x+\frac{\pi}{3})+c$
$\cos(2x+\frac{\pi}{3})$	$\frac{1}{12}(3x+2)^4+c$
$(4x-1)^3$	$\frac{1}{-8}(4x-1)^{-2}+c$
$\sin(2x+\frac{\pi}{3})$	$\frac{1}{16}(4x-1)^4+c$
$(4x-1)^{-3}$	$\frac{-1}{9}(3x+2)^{-3}+c$
$(3x+2)^{-4}$	$\frac{-1}{2}\cos\left(2x+\frac{\pi}{3}\right)+c$