







Calculate the glomerular filtration rate (creatinine clearance) and determine the stage of chronic kidney disease in the following patients:

<p>Woman</p> <p>40 years old</p> <p>body weight – 63 kg</p> <p>serum creatinine – 70 $\mu\text{mol/l}$</p>	<p>Man</p> <p>60 years old</p> <p>body weight – 70 kg</p> <p>serum creatinine – 400 $\mu\text{mol/l}$</p>
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Cockcroft-Gault Equations:

$$\text{GFR (ml/min)} = \frac{(140 - \text{age (years)}) \times \text{body weight (kg)}}{\text{serum creatinine (}\mu\text{mol/l)}} \quad \left| \quad \text{GFR (ml/min)} = \frac{(140 - \text{age (years)}) \times \text{body weight (kg)}}{\text{serum creatinine (}\mu\text{mol/l)}} \times 1,2 \right.$$

STAGES OF CHRONIC KIDNEY DISEASE		GFR*	% OF KIDNEY FUNCTION
Stage 1	Kidney damage with normal kidney function	90 or higher	 90–100%
Stage 2	Kidney damage with mild loss of kidney function	89 to 60	 89–60%
Stage 3a	Mild to moderate loss of kidney function	59 to 45	 59–45%
Stage 3b	Moderate to severe loss of kidney function	44 to 30	 44–30%
Stage 4	Severe loss of kidney function	29 to 15	 29–15%
Stage 5	Kidney failure	Less than 15	 Less than 15%

* Your GFR number tells you how much kidney function you have. As kidney disease gets worse, the GFR number goes down.