

Parallel Circuits

The following problems are all based on the following parallel circuit. For each problem, find all the missing numbers.



Circuit 1

	<i>R</i>	<i>I</i>	<i>V</i>	
R ₁	3 Ω			V _{total} = 9 V
R ₂	3 Ω			I _{total} =
R ₃	3 Ω			R _{total} =

Circuit 2

	<i>R</i>	<i>I</i>	<i>V</i>	
R ₁	12 Ω	0.5 A		V _{total} =
R ₂	12 Ω			I _{total} =
R ₃	12 Ω			R _{total} =

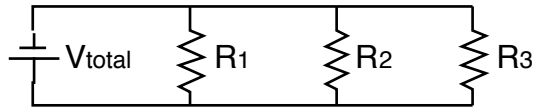
Circuit 3

	<i>R</i>	<i>I</i>	<i>V</i>	
R ₁	6 Ω			V _{total} = 6 V
R ₂	12 Ω			I _{total} =
R ₃	3 Ω			R _{total} =

Circuit 4

	<i>R</i>	<i>I</i>	<i>V</i>	
R ₁	6 Ω			V _{total} = 12 V
R ₂	12 Ω			I _{total} = 6 A
R ₃				R _{total} =

Parallel Circuits



Circuit 5

	<i>R</i>	<i>I</i>	<i>V</i>	
R ₁	10 Ω			V _{total} =
R ₂				I _{total} =
R ₃	20 Ω	1 A		R _{total} = 5 Ω

Circuit 6

	<i>R</i>	<i>I</i>	<i>V</i>	
R ₁		0.5 A		V _{total} =
R ₂				I _{total} = 3 A
R ₃		1 A		R _{total} = 2 Ω

Circuit 7

	<i>R</i>	<i>I</i>	<i>V</i>	
R ₁		2 A		V _{total} =
R ₂	2 Ω	3 A		I _{total} =
R ₃		5 A		R _{total} =

Circuit 8

	<i>R</i>	<i>I</i>	<i>V</i>	
R ₁	8 Ω			V _{total} =
R ₂		2 A		I _{total} = 4 A
R ₃				R _{total} = 1 Ω