

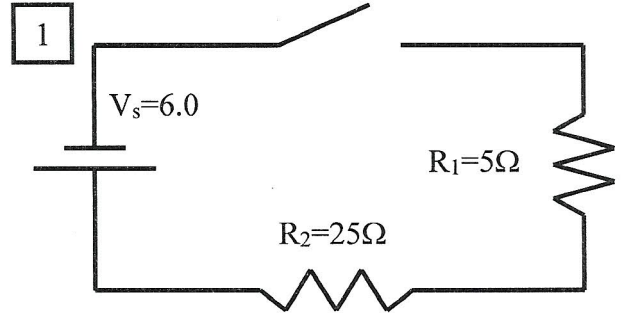
Identify the type of circuit and find the missing values for each of the circuits shown below.

1. Type of circuit: SERIES

Equations:

SAME

$V_s = 6V$	$I_T = 0.2A$	$R_T = 30\Omega$
$V_1 =$	$I_1 = 0.2A$	$R_1 = 5\Omega$
$V_2 =$	$I_2 = 0.2A$	$R_2 = 25\Omega$

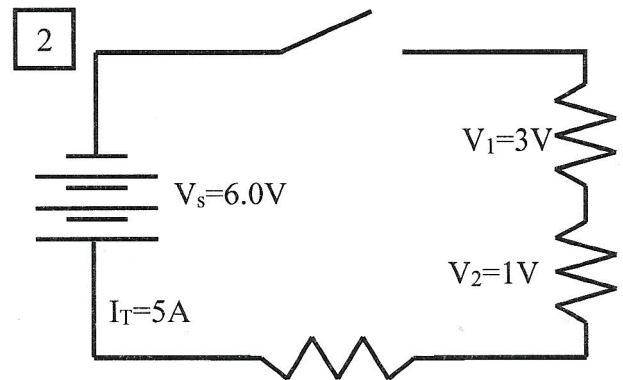


2. Type of circuit: SERIES

Equations:

SAME

$V_s = 6V$	$I_T = 5A$	$R_T = 1.2\Omega$
$V_1 = 3V$	$I_1 = 5A$	$R_1 = 0.6\Omega$
$V_2 = 1V$	$I_2 = 5A$	$R_2 = 0.2\Omega$
$V_3 = 2V$	$I_3 = 5A$	$R_3 = 0.4\Omega$

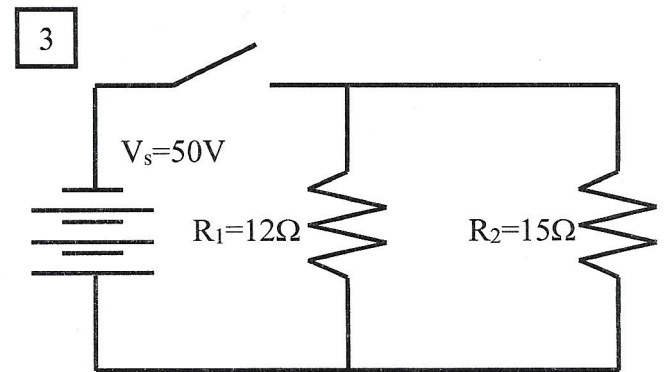


3. Type of circuit: PARALLEL

Equations:

SAME

$V_s = 50V$	$I_T = 7.49A$	$R_T = 6.67\Omega$
$V_1 = 50V$	$I_1 = 4.16A$	$R_1 = 12\Omega$
$V_2 = 50V$	$I_2 = 3.33A$	$R_2 = 15\Omega$

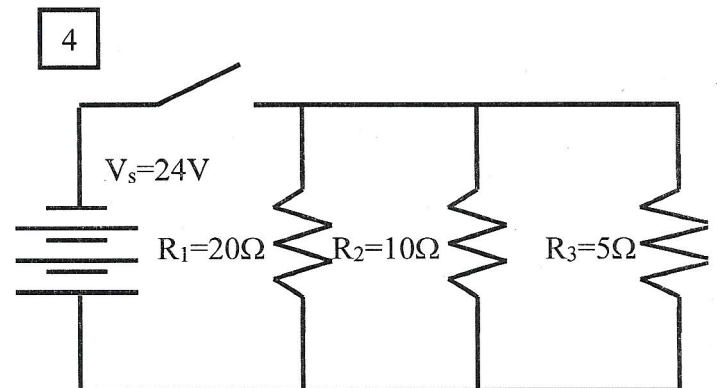


4. Type of circuit: PARALLEL

Equations:

SAME

$V_s = 24V$	$I_T = 10.8A$	$R_T = 2.22\Omega$
$V_1 = 24V$	$I_1 = 1.2A$	$R_1 = 20\Omega$
$V_2 = 24V$	$I_2 = 2.4A$	$R_2 = 10\Omega$
$V_3 = 24V$	$I_3 = 4.8A$	$R_3 = 5\Omega$



$V = IR$

$I = \frac{V}{R}$

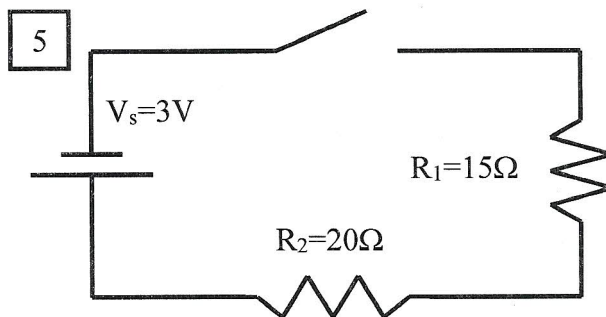
$R = \frac{V}{I}$

5. Type of circuit: SERIES

Equations:

SAME

$V_s = 3V$	$I_T = 0.086A$	$R_T = 35\Omega$
$V_1 = 1.28V$	$I_1 = 0.086A$	$R_1 = 15\Omega$
$V_2 = 1.72V$	$I_2 = 0.086A$	$R_2 = 20\Omega$

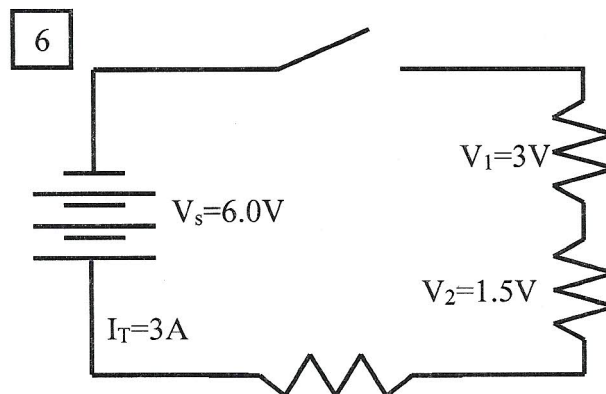


6. Type of circuit: SERIES

Equations:

SAME

$V_s = 6V$	$I_T = 3A$	$R_T = 2\Omega$
$V_1 = 3V$	$I_1 = 3A$	$R_1 = 1\Omega$
$V_2 = 1.5V$	$I_2 = 3A$	$R_2 = 0.5\Omega$
$V_3 = 1.5V$	$I_3 = 3A$	$R_3 = 0.5\Omega$

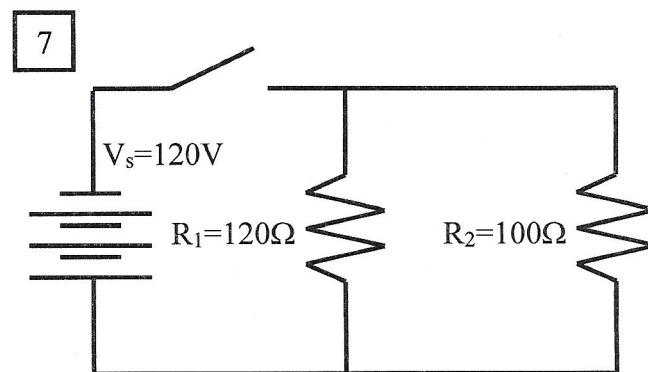


7. Type of circuit: PARALLEL

Equations:

SAME

$V_s = 120V$	$I_T = 2.2A$	$R_T = 54.54\Omega$
$V_1 = 120V$	$I_1 = 1A$	$R_1 = 120\Omega$
$V_2 = 120V$	$I_2 = 1.2A$	$R_2 = 100\Omega$

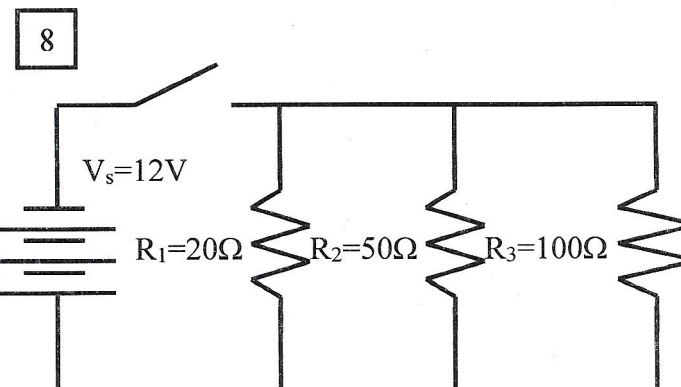


8. Type of circuit: PARALLEL

Equations:

SAME

$V_s = 12V$	$I_T = 0.96A$	$R_T = 12.5\Omega$
$V_1 = 12V$	$I_1 = 0.6A$	$R_1 = 20\Omega$
$V_2 = 12V$	$I_2 = 0.24A$	$R_2 = 50\Omega$
$V_3 = 12V$	$I_3 = 0.12A$	$R_3 = 100\Omega$



$$V = IR$$

$$I = \frac{V}{R}$$

$$R = \frac{V}{I}$$