

Bulletin HY14-2104/US

Series MV4 Multi-Pak Directional Control Valves

Effective: February 1, 2004
Supersedes: Cat. No. PMF 1003 dated 10/99

Features

- Solenoid-operated valves incorporate manual overrides for virtually fail-safe performance
- Spool configurations allow for open-center series or closed-center parallel circuit stacks
- Solenoid coils are weather-resistant and rated for continuous duty at nominal voltage. They provide for low current consumption to minimize energy usage.
- Bankable inlet relief
- Inlet dump valve for use with parallel circuits
- Mid inlet/outlet section
- DC solenoid coils
- Various solenoid coil terminations
- Palm button manual overrides
- Proportional flow inlets (main & mid)

Description

The Parker Series MV4 Multi-Pak, solenoid-operated valves offer a modular banking design concept which eliminates costly fittings and potential leak points that simplify both factory and field installations.

In addition to banking directional control valves, the main system relief valve may also be banked.

Attachment options including crossover reliefs, single and double, pilot-operated checks as well as anti-cavitation checks, can be stacked on the cylinder ports.

All Parker Multi-Pak valves utilize the proven wet plunger design for trouble-free performance even in continuous-duty applications.

Specifications

Flow: 12 GPM (45 L/M)*. For higher flow applications, consult factory.

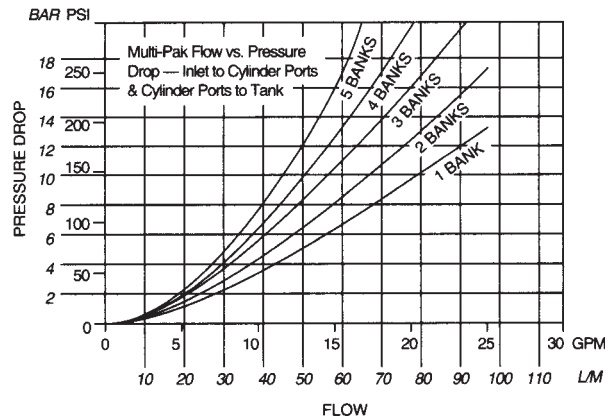
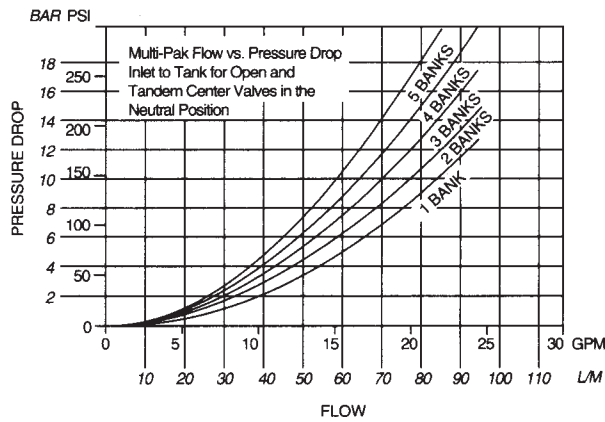
Operating Pressure: Parallel Bank: 3000 PSI (207 Bar). Series Bank: 2500 PSI (172 Bar).

Operating Fluid: Standard petroleum-based.

Leakage C-T at 3000 PSI (207 Bar): 14.9 in³/min. (244 cc/min.) at 100°F (38°C), 150 SSU (32 cSt).

Filtration Requirement: Recommend 25 micron (nominal). Class 18/15 according to ISO 4406, or cleaner.

PERFORMANCE



NOTE: SAE 10 oil at 100°F (38°C), Viscosity 150 SSU (32 cSt)

MATERIALS

Construction: Hardened steel spool, precision fit into high-strength alloy cast iron body, Buna “N” seals. Solenoid coils are epoxy-encapsulated (weather-resistant), with Class H magnet wire and crosslinked polyethylene coated lead wires.

Porting: SAE-8 (3/4-16 thread)

Banking Limitation: Recommended to 5 sections only. Additional sections on factory-approved application.

Tie Rod Torque Specification:

115-125 lb. in. (13.0-14.1 N-m)

Shipping Weight Per Section: 12.8 lbs. (5.8 kg) approx.

OPTIONS

- Direct acting relief
- Differential area relief
- Inlet dump valve with differential area relief (for use in parallel circuits)
- Mid inlet/outlet section

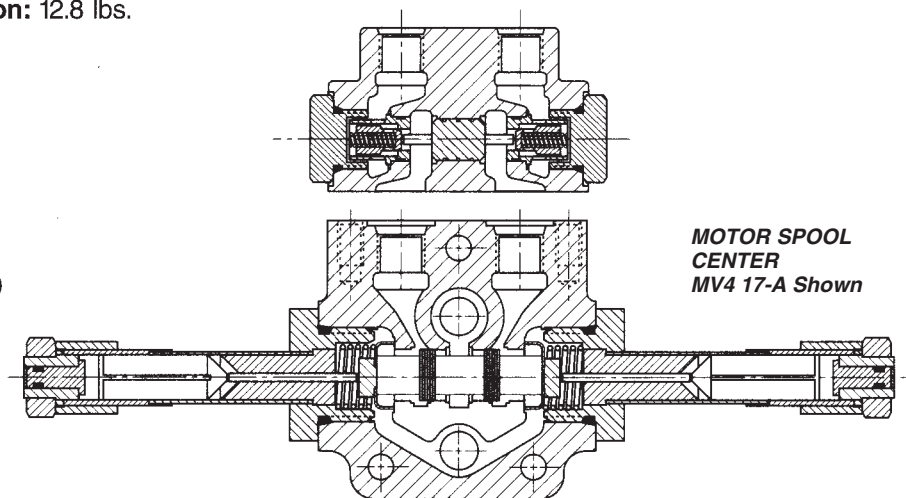
ELECTRICAL DATA

Input Voltages: 12 or 24 VDC or 115 VAC

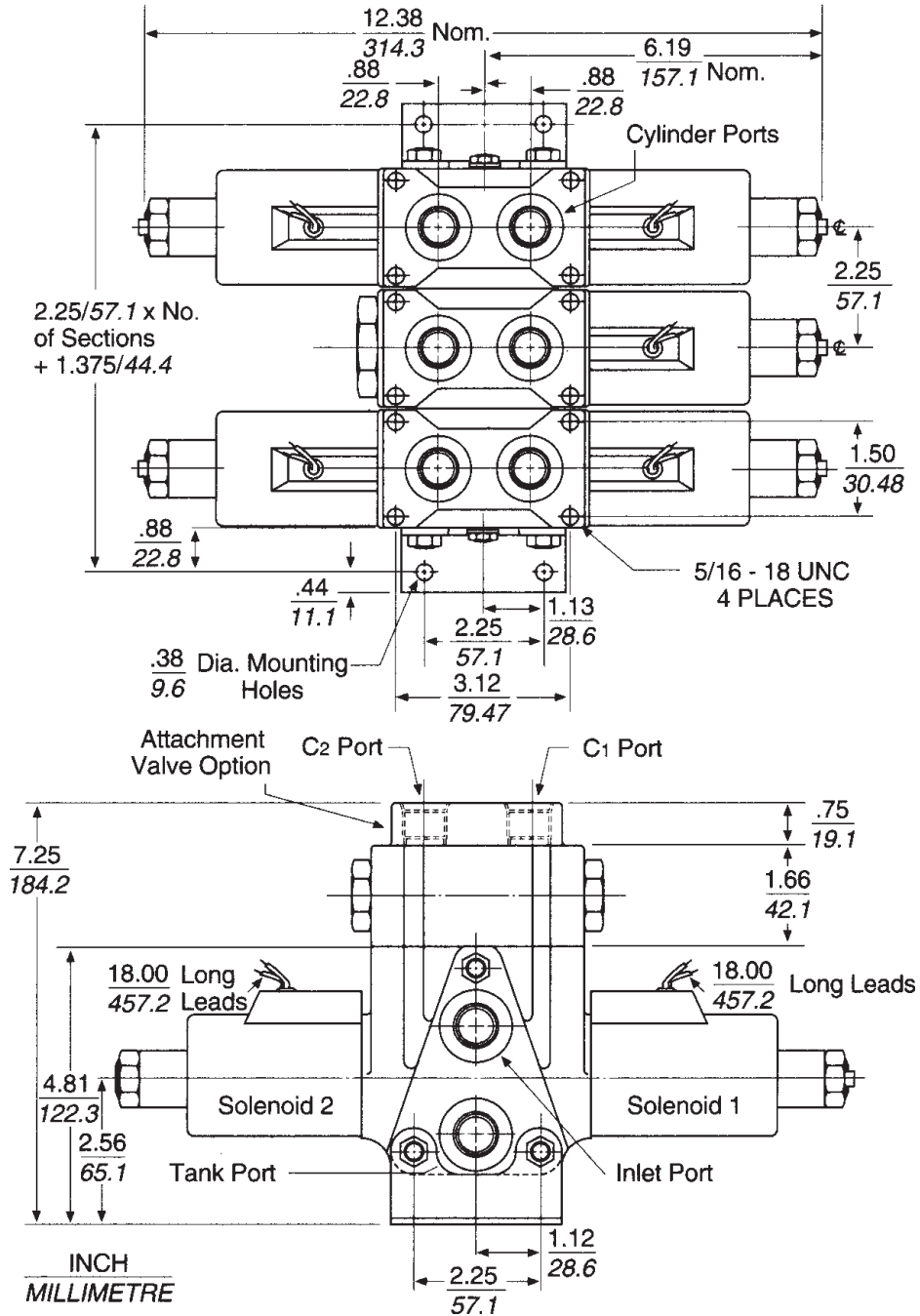
Current Draw: 12 VDC—3.4 A at 64°F (20°C)

24 VDC—1.7 A at 64°F (20°C)

115 VAC—41 A at 64°F (20°C)

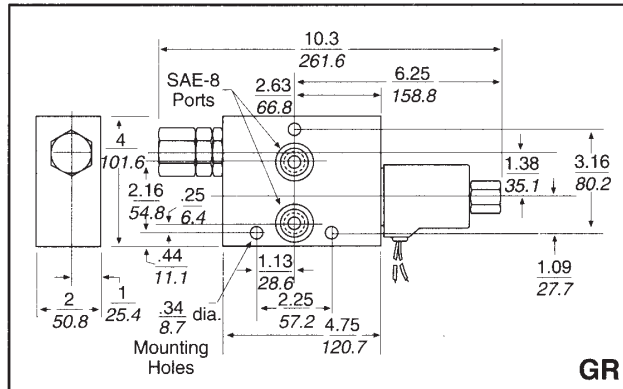


DIMENSIONS



DIMENSIONS ARE IN INCHES (MILLIMETERS) AND ARE FOR REFERENCE ONLY.

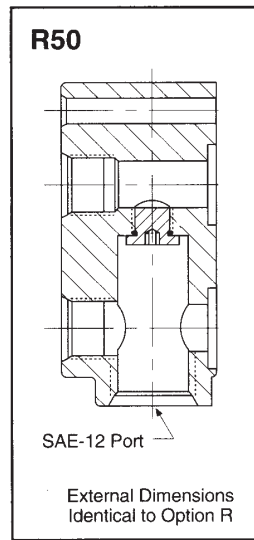
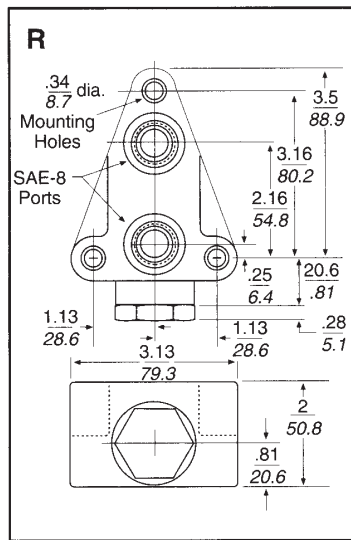
OPTIONS



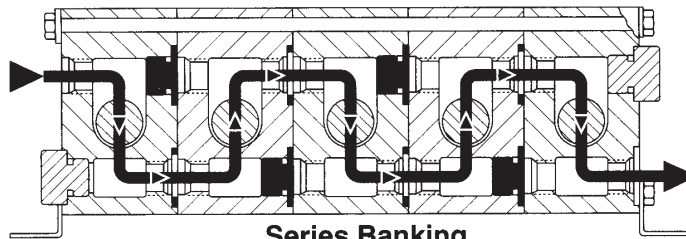
Inlet Dump Valve with Differential Area Relief

Anodized aluminum body
Adjustable in 3 pressure ranges: 300-1000/1001-2000/2001-3000 psi
(21-69/69-138/138-207 BAR)

Direct Acting Relief Valve (Fixed – Specify Setting)

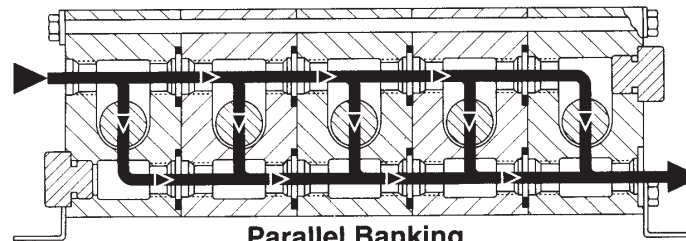


Mid Outlet



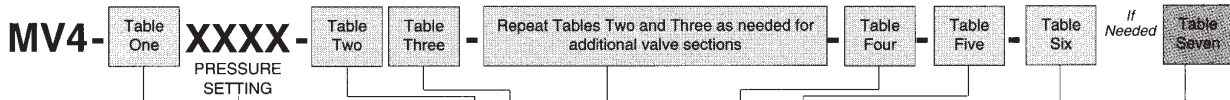
Series Banking (Tandem Center)

Note: When using inlet with relief valve in series banking stacks, provide separate plumbing on the outlet of relief valve section.



Parallel Banking (Closed Center)

ORDER CODE



Example: **MV4-GR2000-17A-15TT-17L-----12-LA**

MV4-BK4

TABLE ONE		
R		Inlet with factory adjustable direct acting relief
GR		Inlet dump valve with adjustable differential relief
EF		Proportional inlet with direct acting relief (flow range 0 to 10 gpm) (bypass port T2 must go directly to tank)

Specify pressure setting

TABLE TWO		
14		3 position 4 way C2 blocked-C1 & P open to T (series)
15		3 position 4 way all ports blocked (parallel)
17		3 position 4 way motor (C1 and C2 Open to Tank) (parallel)
22		2 position 4 way C1 & C2 blocked P open to T (series)
23		2 position 4 way C2 Blocked P open to T (series)
24		2 position 4 way all ports blocked (parallel)
30		2 position 4 way selector P to C1-C2 to tank (parallel)
32		3 position 3 way P to T (C1 blocked, C2 plugged) (series)
42		3 position 4 way All ports open to tank (series)
43		3 position 4 way P to T (C1 & C2 blocked) (series)
JJ		Palm button manual override

(Note: Spool number precedes or JJ designation)

TABLE THREE		
A		Dual lock valve
B		Lock valve with thermal relief
F		Crossover relief fixed setting (Specify pressure settings)
TT		Crossover reliefs adjustable (0-3000 psi)
L		Single lock valve

TABLE FOUR Omit if not required		
MIO		Mid inlet/outlet For use when stacking more than 5 valve sections.
MR		Mid inlet/outlet with adjustable direct acting relief
MGR		Mid inlet/outlet dump valve with differential area relief

Specify pressure setting

TABLE FIVE		
	Coil	Part #
12	CO7-12-LA	12 Volts DC
	CO7-12-TD	12 Volts DC
24	CO7-24-LA	24 volts DC
	CO724-TD	24 volts DC
115 220	CO7-115-LA	115 volts AC
	CO7-220-LA	220 volts AC

TABLE SIX		
LA		12 volts DC 24 volts DC
LD		115 volts AC 220 volts AC
TD		12 volts DC 24 volts DC Internal ground .25 (6.3 mm) width
TE		12 volts DC 24 volts DC

TABLE SEVEN Omit if factory assembled	
MV4-	Banking Kits consist of 3 fatigue proof steel tie rods, 6 hex nuts, 6 washers, mounting brackets. Tie rods are sized to accept an Inlet/Outlet and then the number spool sections and/or conversion plates required.
BK1	1 spool section
BK1R	1 spool section+Inlet relief
BK2	2 spool section
BK2R	2 spool section+Inlet relief
BK3	3 spool section
BK3R	3 spool section+Inlet relief
BK4	4 spool section
BK4R	4 spool section+Inlet relief
BK5	5 spool section
BK5R	5 spool section+Inlet relief

Please consult factory when stacking more than 5 sections.

ACCESSORIES	
Attachment bolt Kits	
MV4-AK1	Single attachment
MV4-AK2	Double attachment

Please Note: Mylar shims and "O" rings are shipped with each valve section.

HOW TO ORDER: Parker Mini-Pak Valves are coded by the assembled stack configuration (Left to Right) in a sequential order from inlet to outlet. Please refer to the ordering tables, to select a circuit type, inlet options, spool configuration, spool options, coil conversion options as they apply to your application.

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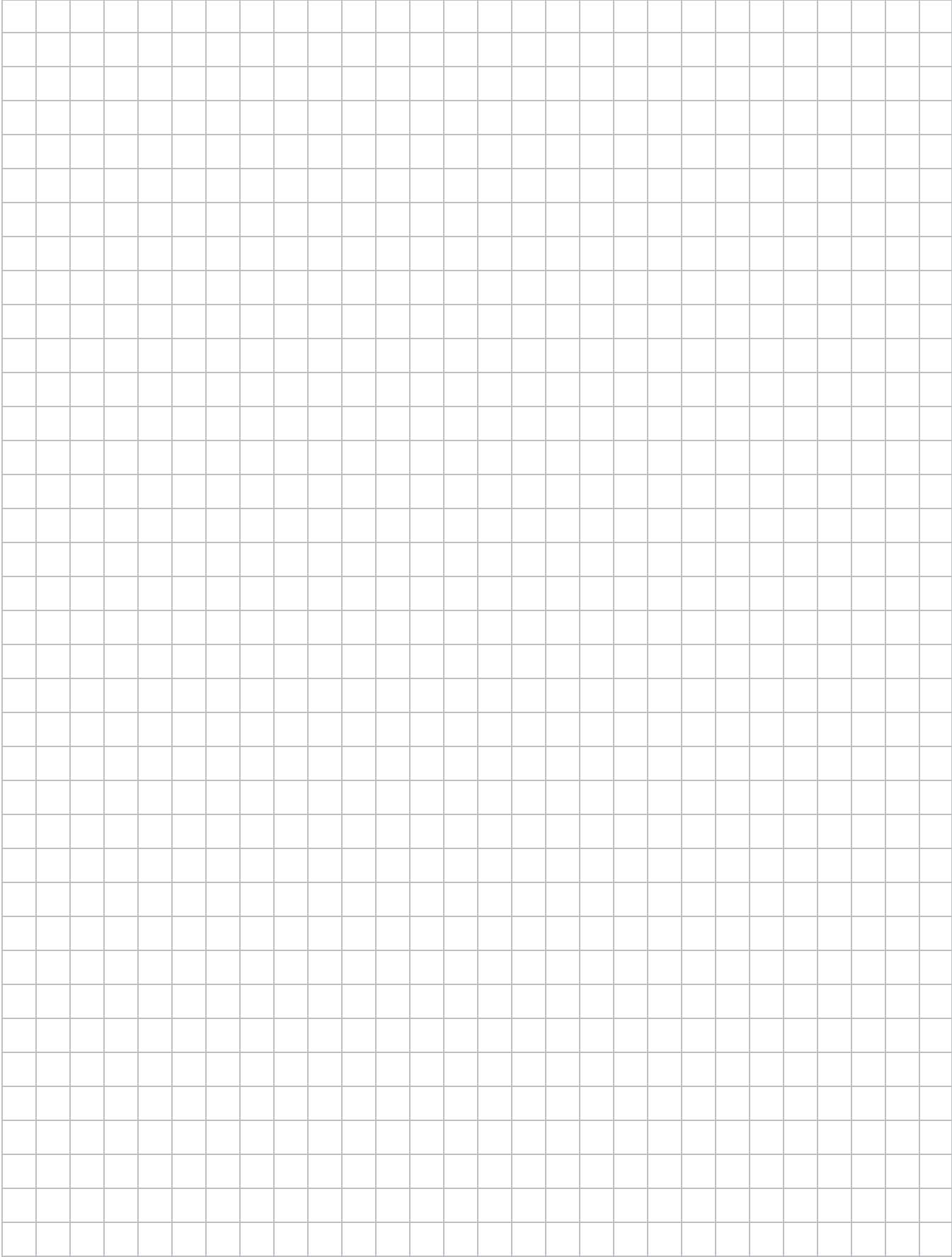
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Notes



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