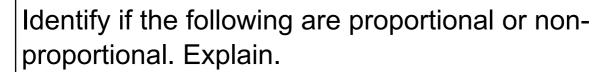# Proportional vs. Non-proportional

Proportional - Quantities that have a constant ratio (The Unit rates are the same)
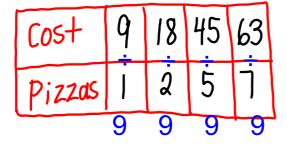
Non-Proportional - Quantities that DO NOT have a constant ratio
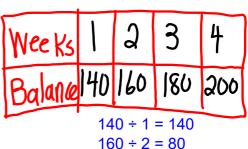
(The unit rates are different)

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Identify if the following are proportional or non-proportional. Explain.

1. Cost per pizza

Cost	9	18	45	63
Pizzas	1	2	5	7

9   9   9   9

Proportional - All the unit rates are $9 per pizza

2. Money per week

Weeks	1	2	3	4
Balance	140	160	180	200

140 ÷ 1 = 140
160 ÷ 2 = 80
180 ÷ 3 = 60
200 ÷ 4 = 50

Non-proportional - The unit rates are all different

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On own

$ per hour

Time	1	2	3	5	8
$	45	90	135	225	360

1.

$45 \div 1 = 45$

$90 \div 2 = 45$

$135 \div 3 = 45$

$225 \div 5 = 45$

$360 \div 8 = 45$

Proportional - All the unit rates are $45 per hour

gallons per hour

Time	2	3	7	10
Gal.	10	15	35	55

2.

$10 \div 2 = 5$

$15 \div 3 = 5$

$35 \div 7 = 5$

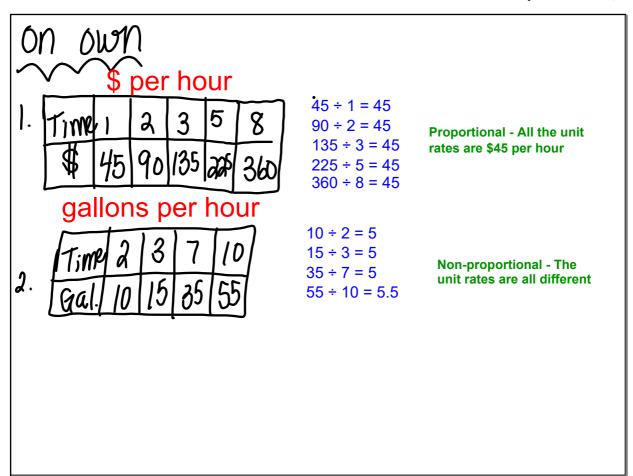$55 \div 10 = 5.5$

Non-proportional - The unit rates are all different

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