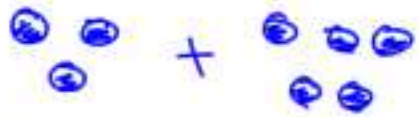
Memory Card – Unit Ø Review Name

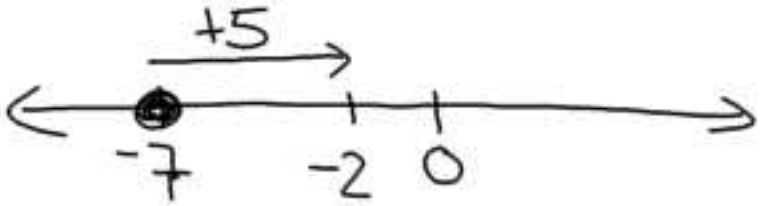
Adding Integers

$(+7) + (+2) = 9$

$(-3) + (-5) = -8$ ← going further into the negatives



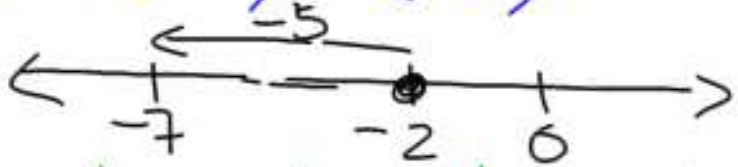
$(-7) + (+5) = -2$



$(6) + (-2) = +4$

Subtracting Integers

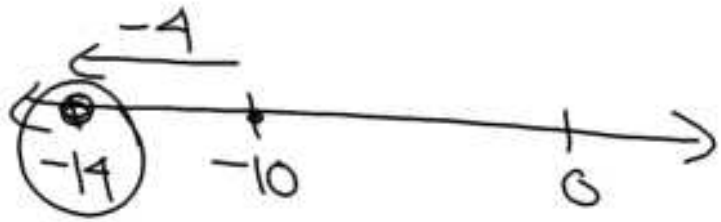
$-2-5=-7$ or $(-2)-(+5)$



$7+(-(-3))$ ← two negatives beside each other cancel to be a positive

$=+10$

$-10-(+4)=-14$



Multiplying/Dividing Integers

	+	−
+	+	−
−	−	+

★ Signs are the same = +

Signs are different = −

$(-2) \times (7)$

$= -14$

$(-3) \times (-4)$

$= +12$

2 neg. cancel out

$(-8) \div (2)$

$= -4$

Order of Operations

Brackets

Exponents

left 2 right { **D**ivision, **M**ultiplication }

left 2 right { **A**ddition, **S**ubtraction }

Ex. $3(7-5) \div 6 + 2^3$

$= 3(2) \div 6 + 8$ ($2^3 = 2 \times 2 \times 2$)

x first then ÷

$= 6 \div 6 + 8$

$= 1 + 8$

$= 9$

Collecting Like Terms → same variables and exponents

ex: $7x^2$, $12x^2$, $-x^2$
$4bc^3$, $2bc^3$

$4x + 5 - 7x + 2$ ← add integers of like terms

$= -3x + 7$

1 not like terms because the exponents are different

$f^2 - 3f + 2 - 5f^2 - 4f$

$= -4f^2 - 7f + 2$

Solving Equations - to find the value of the variable

$$8 - 4x = 20$$

$$-8 \qquad -8$$

$$\frac{-4x}{-4} = \frac{12}{-4}$$

$$x = -3$$

- do opposite operations to both sides

* get rid of things farthest away from the variable first.

Solving Multi-Step Equations

$6+3x-4=5x-8-x$ ← combine like terms on the same side of = sign

$2+3x=4x-8$ ← get all variable terms on the same side

$-4x \quad -4x$

$2-1x=-8$

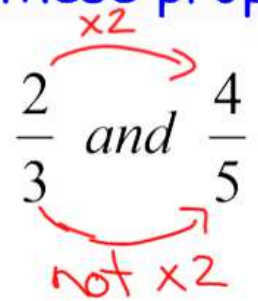
$-2 \quad -2$

$\frac{-1x}{-1}=\frac{-10}{-1}$

$x=10$

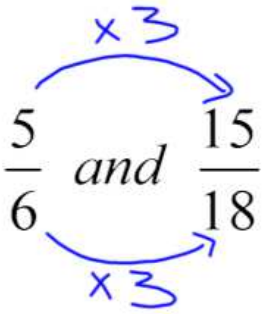
Proportions ← two equal fractions

Are these proportional?



not proportional

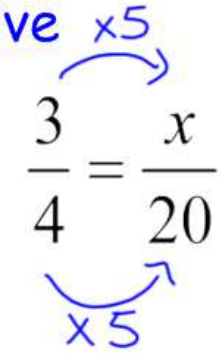
not a common multiple



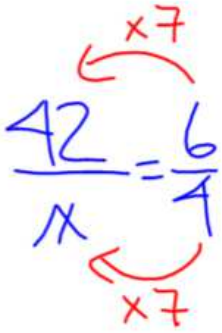
✓ proportional

common multiple of 3

Solve

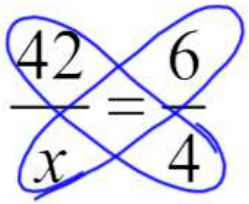


$x = 15$



$x = 28$

or



← big #s we can cross multiply

$\frac{6x}{6} = \frac{168}{6}$

$x = 28$