Multiplying/Dividing Integers 3B

Positive x Positive → + + →

$7 \cdot 2 = 14$

$5 \div 5 = 1$

$\frac{12}{6} = 2$

Negative x Negative → − − →

$(-3) \cdot (-3) = 9$

$(-6) \div (-2) = 3$

$-3(-b) = 3b$

Positive x Negative → + − →

$20 \div (-4) = -5$

$2(-x) = -2x$

$\frac{50}{-5} = -10$

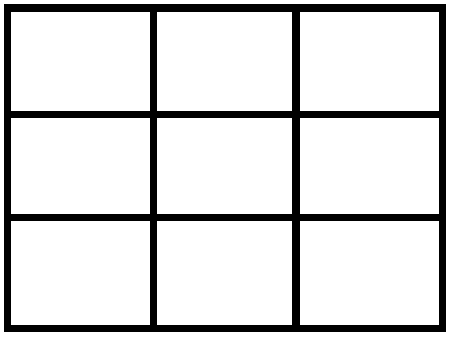
Negative x Positive → − + →

$\frac{-8}{2} = -4$

$(-9) \cdot 3 = -27$

$-7(c) = -7c$

EVEN # of negatives will give you a **POSITIVE** answer ---
ODD # of negatives will give you a **NEGATIVE** answer



Use the rules to solve.

1) $(-4)\bullet(-6)=$	2) $(-18)\div 3=$
3) $(-5)\bullet(-3)=$	4) $(-6)\bullet(-6)=$
5) $6\bullet(-2)=$	6) $11\bullet(-4)=$
7) $(-2)\bullet 4=$	8) $(-6)\bullet 15=$
9) $(-10)\bullet 3=$	10) $(-5)(-8)=$
11) $12\div(-3)=$	12) $\frac{54}{(-6)}=$
13) $8\div(-2)=$	14) $16\div(-4)=$
15) $\frac{(-2)}{2}=$	16) $(-8)\div 4=$
17) $(-10)\div(-5)=$	18) $(-5)\div(-5)=$

19) Each month, Pablo's bank statement shows a withdrawal of $40 for his gym membership. What was the total withdrawal for the year?	20) For every 1 kilometer increase in altitude, the temperature drops 7°C. Find the temperature change for a 5 kilometer altitude increase.
21) Most people lose 100 to 200 hairs per day. If you were to lose 150 hairs per day for 10 days, what would be the change in the number of hairs you have?	22) A weather forecaster says that the temperature is changing at a rate of -8° per hour. At this rate, how long will it take for the temperature change to be -24°?
23) The temperature in Greenland was -12°. For 4 hours the temperature rose 3° every hour. What was the temperature after 4 hours?	24) Jose scored -2 on each of six golf holes. What was his overall score for these six holes?

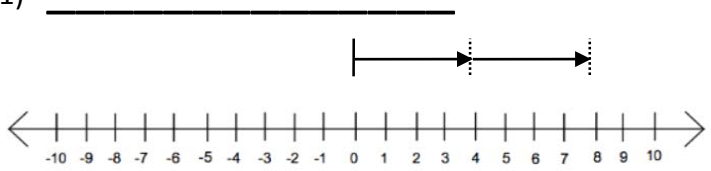
Evaluate each expression if x=-4 , y=6, and z=-3

1) 18 ÷ z = _____	2) y • z • x = _____
3) -4x = _____	4) $\frac{y}{-2}$ = _____
5) -2(3z) = _____	6) $\frac{xy}{12}$ = _____
7) $\frac{y}{z}$ = _____	8) xyz = _____

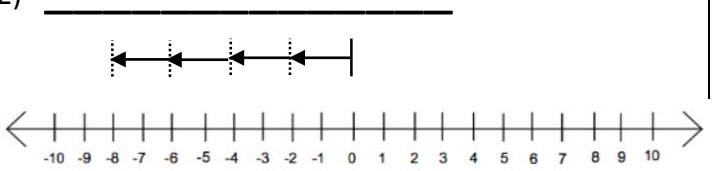
***REMEMBER:
TOWARDS zero is division
AWAY FROM zero is multiplication

Interpret the following Models.

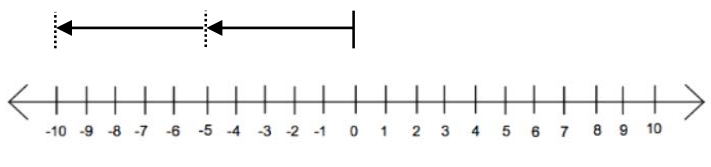
1)



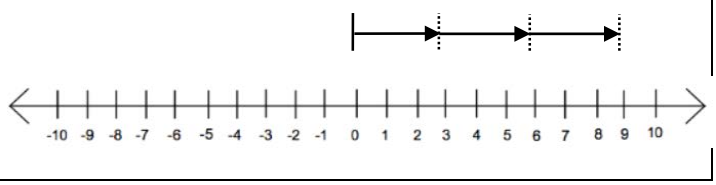
2)



3)

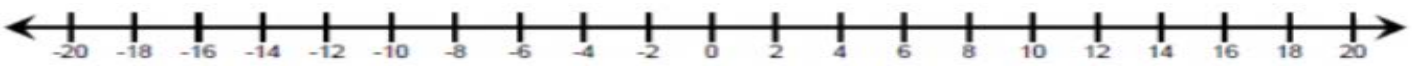


4)

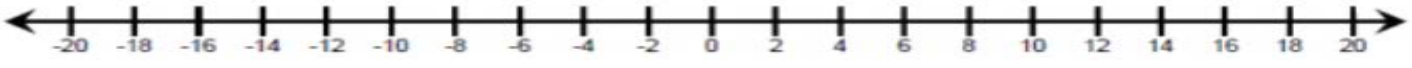


Multiply and model on the number line.

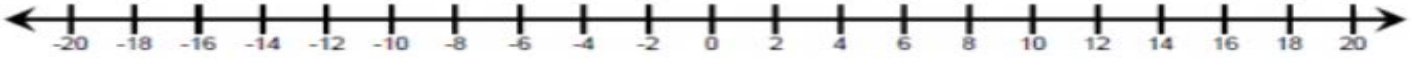
5) $-3 \cdot 6 =$ _____



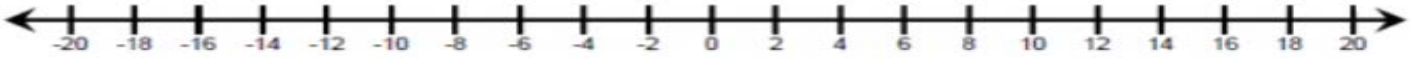
6) $-9 \cdot 2 =$ _____



7) $4 \cdot 4 =$ _____



8) $2 \cdot 8 =$ _____



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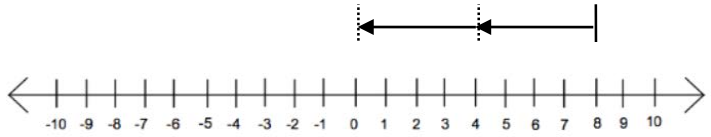
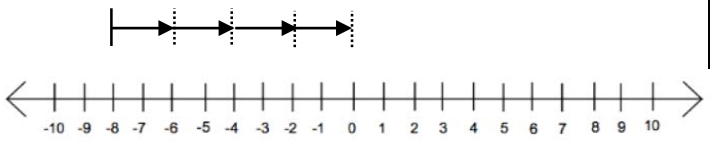
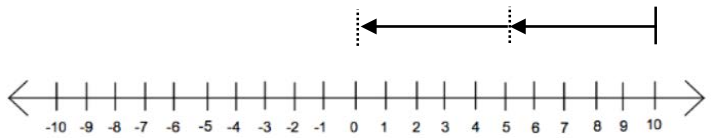


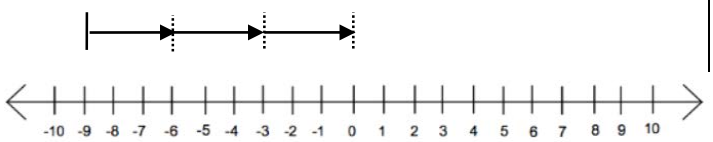
2) _____



3) _____

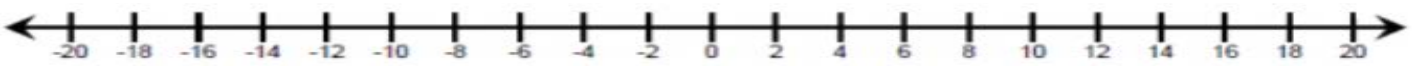


4) _____

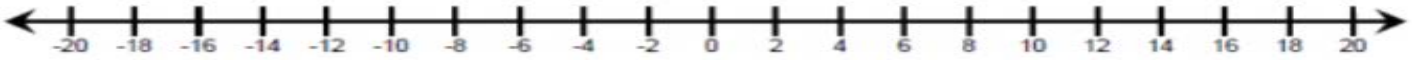


Divide and model on the number line.

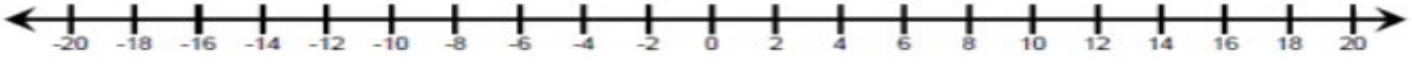
5) -18 ÷ 3 = _____



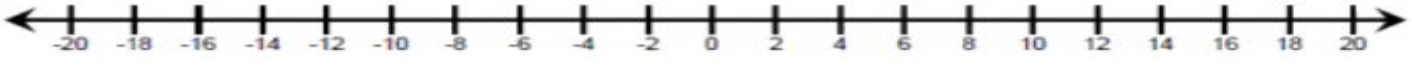
6) -9 ÷ 1 = _____

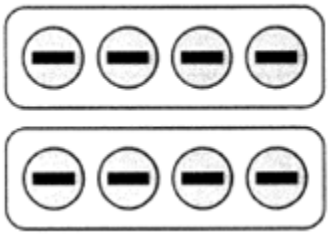
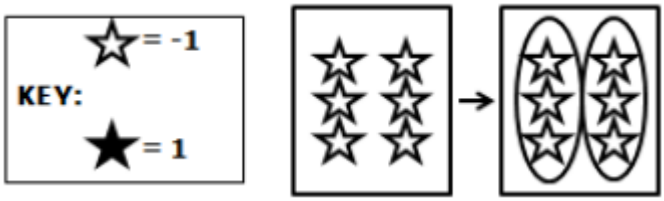
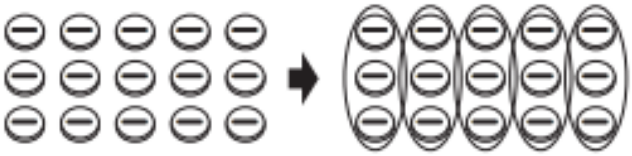


7) 16 ÷ 4 = _____



8) 10 ÷ 5 = _____



1) What equation is being modeled by this picture? 	2) What number sentence is being modeled on the number line below? 
3) What number sentence is being modeled on the number line below? 	4) What number sentence is being modeled on the number line below? 
5) Make your own model.	6) Make your own model.