Math 9 Order of Operations Practice

Name: ______ Block: _____

Math 9 Tip: Regularly completed homework will always improve your Math 9 mark

1. Simplify, show all steps

a)
$$3 + 2 \times 7 =$$

b)
$$(-4) \times [18 - (-22)] =$$

c)
$$77 \div (-7) \times 4 \times [(-4) + 15] =$$

d)
$$3^2 + (3-4) \times 7 + 8 =$$

e)
$$(4 + 44 \div 2) \times 3 + 5 =$$

f)
$$2 + (-2)^2 - 2 \times (-4) \div (-1) =$$

g)
$$(4)^3 + 2 - (17)(2 + 8) - 1 =$$

h)
$$4 + (-9) \times [8 - (-7)] + 3 - 14 =$$

i)
$$9 + (-17) - 2 \times [(-6)^2 - 44] \div 4 =$$

$$j) (-9) + 17 - 3 \times [(-23) + 12] - 2 =$$

- 2. Explain the difference between (i) -3^2 and (ii) $-(3^2)$.
- Does the bracket change affect the calculation for (i) and (ii). If so how?

3. Multiplying Negatives:

Continue the following reasoning to answer the problems

- a tank is filled at a rate of 5 litres per minute,
- two minutes in the **future**, there will be $(2) \times (5) = +10 (10 \text{ more litres in the tank})$
- a) Using 5 litres per minute, how many litres (more or less) were there 2 minutes ago? Show your calculation
- a tank is draining at a rate of 5 litres per minute (-5)
- b) Using -5 litres per minute, how many litres (more or less) are there 3 minutes from now? Show your calculation
- c) How many litres (more or less) were there 3 minutes from ago? Show your calculation

Answers:

1.(a) 17, (b) -160, (c) -484, (d) 10, (e) 83, (f) -2, (g) -105, (h) -142, (i) -4, (j) 39

youtube link: http://www.youtube.com/watch?v=QPGWkCbqDAM