## Math 9 Order of Operations Practice

Name: $\qquad$
Date: $\qquad$
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) $4+(-9) \times[8-(-7)]+3-14=$
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 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

