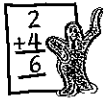## Multiplication of Integers – Solve problems involving integers, including word problems.

Example

Calculate -2×8

To multiply two integers together we multiply as normal, but use the rules below to identify the 'sign' of the answer.
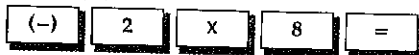
Rules for x

x	+	−
+	+	−
−	−	+

Using the rule in the table

$-2 \times 8 = -16$

By calculator

(−)	2	x	8	=

When multiplying, if the two signs are the same then the answer will be a +. If the two signs are different then the answer will be a −.

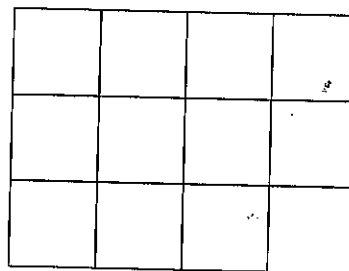### Calculate the following integer problems using your calculator if you wish.

1. $-4 \times 3 =$ _____

2. $8 \times -5 =$ _____

3. $-4 \times -6 =$ _____

4. $-3 \times -6 \times -4 =$ _____

5. $-8 \times 2 \times -5 =$ _____

6. $3 \times -4 \times -7 =$ _____

7. $-15 \times 6 \times -2 =$ _____

8. $14 \times -7 \times -8 \times -2 =$ _____

9. $-13 \times 3 \times -4 \times -3 =$ _____

10. $-8 \times -2 \times -3 \times -4 =$ _____

Problem Solving

How many squares of any size can you find in the shape?

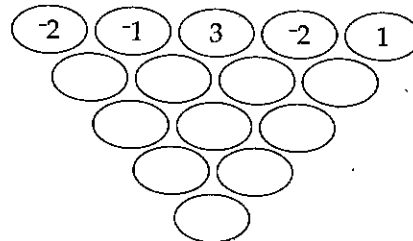Number of squares is _____

Application Problems

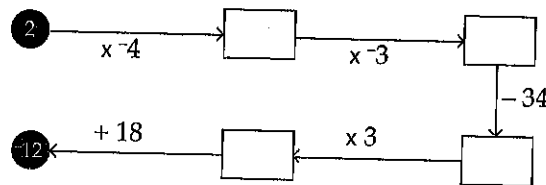Write questions 11 and 12 as an integer expression and then solve.

11. Andy dives to a depth of 34 metres. His friend dives three times his depth. How deep does the friend dive?

_____

_____

12. Adira's spending each month is greater than her income by $115.00. How much will she be in debt by, after 12 months?

_____

13. Find the value in the bottom oval of the triangle. The value in an empty oval is calculated by multiplying the two integers immediately above.
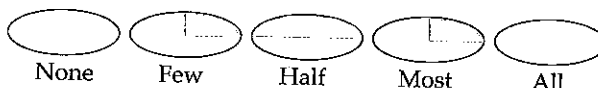

14. Starting with the number 2 follow the arrows along the correct path to get to the answer -12. Fill in the correct numbers in the rectangles along the way.