Grade 8 Mathematics

Revision workshop on 28th April 2026

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inspired by the love of Christ

Questions to revise work from term 1

1. Simplify:

a. $3-(-1)+(-2)$

b. $\frac{2}{5}+\frac{1}{3}-\frac{1}{2}$

c. $(2-5)(-3+1)(-5-1)$

d. $3\frac{1}{2} \div 5\frac{1}{4}$

e. $-10-5\times(2-7)$

f. $\sqrt[3]{-8} + \sqrt{49}$

g. $\frac{2}{5}$ + 50% – 0,08

h. 30% of 120 + $\frac{2}{5}$ of 35

2. Prime factorise 60 and 72 then use your answers to determine:

a. The HCF of 60 and 72

b. The LCM of 60 and 72

c. The smallest number which 72 must be multiplied by to make:

i. A perfect square

ii. A perfect cube

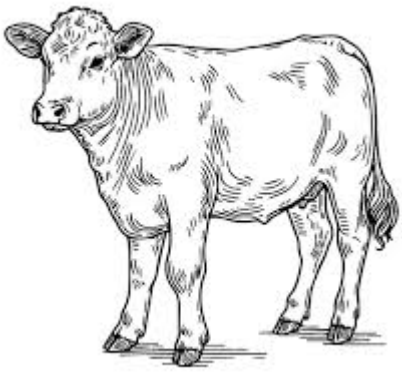
3. 37 litres of diesel costs R1073.

How many litres can I buy with R650?

How much will 80 litres cost?

4. What will a soccer ball priced R360 cost if a 20% discount is given?

5. A farmer buys a cow for R6500. How much must she sell it for if she wishes to make a 15% profit?



6. A cricket bat is marked down from R630 to R529,20. What is the percentage discount being given?

7. A shopkeeper buys a dress for R320 and sells it for R358,40. What is his percentage profit?

Exponents

a^b a is the base and b is the exponent (power or index)

$2 \times 3^2 =$

Exponents come first!

$-2^2 =$

Where a number does not have a power, it is an invisible 1, e.g., $5 = 5^1$

Rules and definitions in English	Examples

Simplify the following:

a. $2^5 \times 2^2$

b. $3 \times 5^7 \times 2 \times 5^9$

c. $\dfrac{6^{19}}{6^{13}}$

d. $(2^2)^5$

e. $(2^2 \times 3)^5 \times 2^3$

f. $\dfrac{2^{16} \times 3^{11}}{2^9 \times 3^7}$

g. $\dfrac{h^3}{h^3} + 5^0 + 6 \times 3^0$

h. $\left(\dfrac{2}{3}\right)^7 \times 3^{11}$

Number patterns

Try to give the next three terms in the following sequences:

3 ; 7 ; 11 ; 15 ;

2 ; 4 ; 8 ; 16 ;

1 ; 4 ; 9 ; 16 ; 25 ;

19 ; 13 ; 7 ; 1 ;

1 000 ; 100 ; 10 ; 1 ;

1 ; 2 ; 4 ; 7 ; 11 ; 16 ;

Consider the following patterns and try to complete the tables which follow:

fig. 1 fig. 2 fig. 3

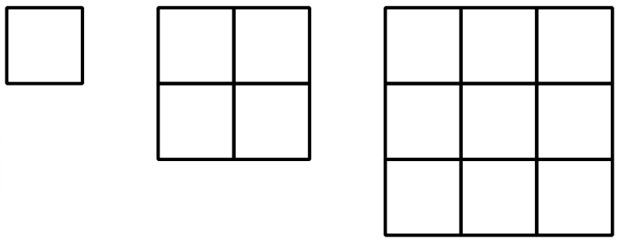


Fig.	1	2	3	4	5	9		*n*	
Number of small squares							144		*p*

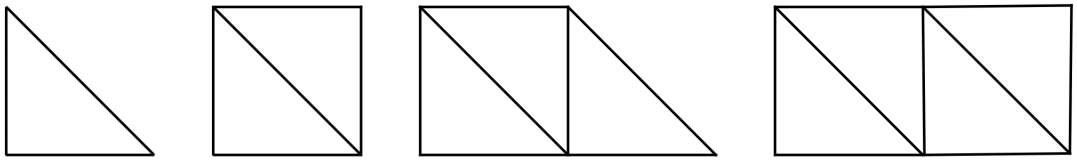
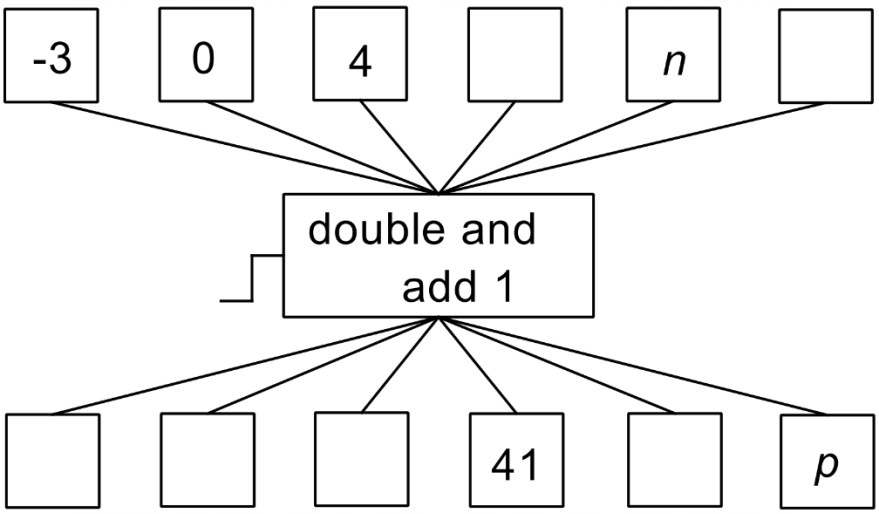
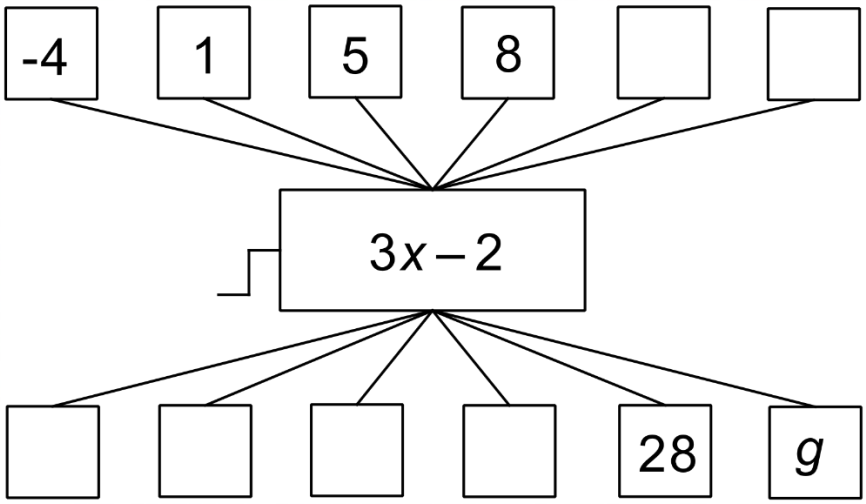


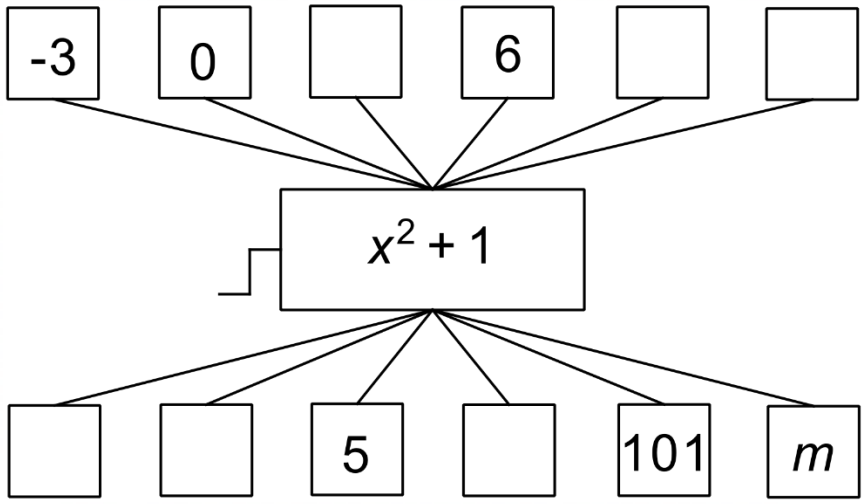
Fig. 1 Fig. 2 Fig. 3 Fig. 4

Fig.	1	2	3	4	5	*n*		
Number of triangles							*t*	
Number of lines								*p*

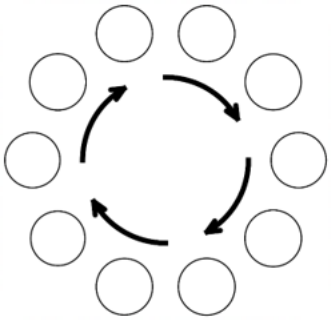
Complete the following number machines:




-4
1
5
8
3x – 2
28
g

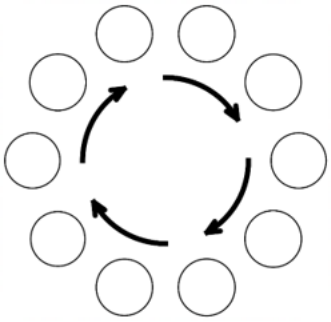

-3
0
6
x² + 1
5
101
m

Shell Sheet



Start with:	Start with:	Start with:	Start with:	Start with:	Start with:

Shell Sheet



Start with:	Start with:	Start with:	Start with:	Start with:	Start with: