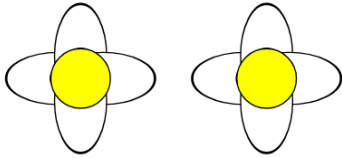


Solve multiplicative comparison problems

- 1** Each flower has 4 petals. How many petals in total?



- | | | |
|------|------|-----|
| A 11 | B 8 | C 4 |
| D 5 | E 10 | |

- 2** Each chair has 4 legs. How many legs in total?



- | | | |
|------|------|------|
| A 38 | B 36 | C 40 |
| D 34 | E 39 | |

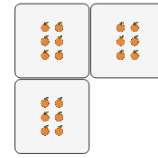
- 3** Each ant has 6 legs. How many legs would there be on 6 ants?



x 6

- | | | |
|------|------|------|
| A 39 | B 32 | C 38 |
| D 31 | E 36 | F 34 |

- 4** Use multiplication to count how many oranges there are in total

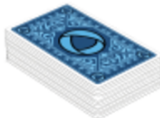
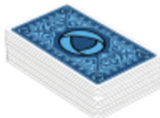


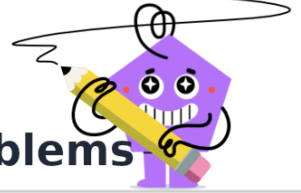
- | | | |
|------|------|------|
| A 8 | B 15 | C 14 |
| D 10 | E 17 | F 18 |

- 5** 9 players each have 8 cards in their hand. How many total cards?



9 players 8 each

- | | |
|---|---|
| A | 
73 cards |
| B | 
72 cards |

**Solve multiplicative comparison problems****6**

Each koala eats 6 apples. There are 3 koalas. Each apple weighs 4 grams. How many apples are eaten in total?

A 17	B 2	C 18
D 12	E 15	F 24

7

How many apples were eaten if a koala eats 54 grams of apples and each apple weighs 6 grams?

A 0	B 0	C -6
D 7	E 48	F 9

8

A circle is drawn so that no part of it lies outside a *regular* hexagon. If such a circle does not touch all six sides of the hexagon, what is the maximum number of sides that it could touch?

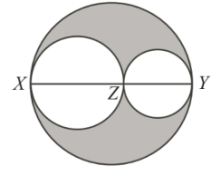
(A) 1 (B) 2 (C) 3 (D) 4 (E) 5

A E	B B	C C
D A	E D	

9

In the diagram, Z lies on XY and the three circles have diameters XZ , ZY and XY . If $XZ = 12$ and $ZY = 8$, then the ratio of the area of the shaded region to the area of the unshaded region is

(A) 12 : 25 (B) 12 : 13 (C) 1 : 1
(D) 1 : 2 (E) 2 : 3



A B	B E	C C
D A	E D	

10

Three-digit integers are formed using only the digits 1 and/or 2. The sum of all such integers formed is

(A) 1332 (B) 333 (C) 999 (D) 666 (E) 1665

A A	B B	C C
D D	E E	

11

Which of the following *must* be an even integer?

(A) The average of two even integers
(B) The average of two prime numbers
(C) The average of two perfect squares
(D) The average of two multiples of 4
(E) The average of three consecutive integers

A D	B B	C E
D C	E A	

12

The weight of a lioness is six times the weight of her female cub and four times the weight of her male cub. If the difference between the weights of the male and female cub is 14 kg, the weight of the lioness, in kg, is

(A) 84 (B) 252 (C) 168 (D) 140 (E) 112

A A	B C	C E
D B	E D	