

NS3-29 Skip Counting by 2s and 4s

You can skip count forwards by 2s starting at 0. Add 2 each time.

$$0 \overset{+2}{\circ}, 2 \overset{+2}{\circ}, 4 \overset{+2}{\circ}, 6 \overset{+2}{\circ}, 8 \overset{+2}{\circ}, 10$$

1. Skip count by 2s.

a) 12, 14, 16, _____, _____, _____

b) 42, 44, 46, _____, _____, _____

c) 68, 70, 72, _____, _____, _____

d) 80, 82, 84, _____, _____, _____

e) 54, 56, 58, _____, _____, _____

f) 88, 90, 92, _____, _____, _____

2. Add. Use skip counting to keep track.

a) \square
 $2 + 2 + 2 = \underline{\quad}$

b) \square \square
 $2 + 2 + 2 + 2 = \underline{\quad}$

c) \square \square \square \square \square
 $32 + 2 + 2 + 2 + 2 + 2 + 2 = \underline{\quad}$

You can skip count forwards by 4s starting at 0. Add 4 each time.

$$0 \overset{+4}{\circ}, 4 \overset{+4}{\circ}, 8 \overset{+4}{\circ}, 12 \overset{+4}{\circ}, 16 \overset{+4}{\circ}, 20$$

3. Skip count by 4s.

a) $\overset{+4}{\circ}$ $\overset{+4}{\circ}$ $\overset{+4}{\circ}$
 4 , 8 , 12 , _____, _____, _____

b) $\overset{+4}{\circ}$ $\overset{+4}{\circ}$
 20 , 24 , 28 , _____, _____, _____

You can skip count by 4s a different way.

- Skip count by 2s.
- Circle every second number.

$$\circled{0}, 2, \circled{4}, 6, \circled{8}$$

4. Use the new way to skip count by 4s.

$\circled{8}$, 10 , 12 , 14 , 16 , 18 , 20 , _____, _____, _____, _____, _____, _____, _____

5. The chart shows the numbers you say when skip counting by 4s. The first two numbers have 0s added.

04	08	12	16	20
24	28	32	36	40
44	48	52	56	60

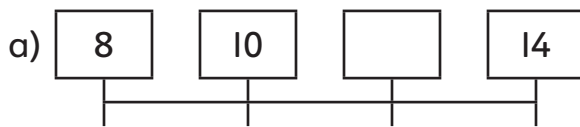
Describe any patterns you see in the **columns** of the chart.

6. Add by skip counting by 4s.

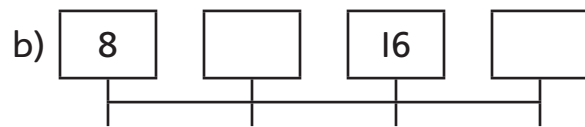
a) $\square + \square + \square + \square = \underline{\quad}$

b) $64 + \square + \square + \square = \underline{\quad}$

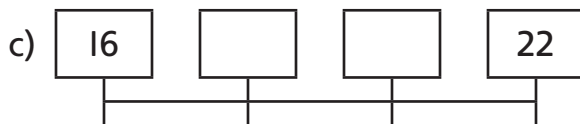
7. Ben skip counts by 2s or 4s. Write the number he counts by. Fill in the missing numbers.



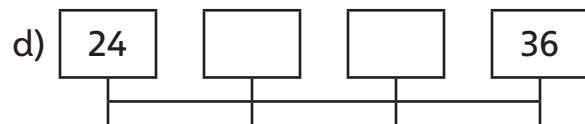
He counts by $\underline{\quad}$.



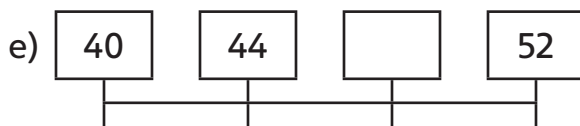
He counts by $\underline{\quad}$.



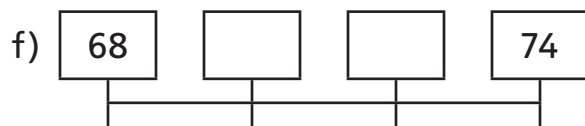
He counts by $\underline{\quad}$.



He counts by $\underline{\quad}$.



He counts by $\underline{\quad}$.



He counts by $\underline{\quad}$.

- 8.** Tasha starts at 0 and skip counts by 4s. Are the numbers she says all even? Explain.

NS3-30 Skip Counting by 5s and 10s

1. Underline the ones digit of the numbers you say when skip counting by 5s.

a) 5 , 10 , 15 , 20 , 25 , 30

Write the pattern in the ones digits. 5 , 0 , _____ , _____ , _____ , _____

b) 35 , 40 , 45 , 50 , 55 , 60

Write the pattern in the ones digits. _____ , _____ , _____ , _____ , _____ , _____

2. Circle the numbers you say when skip counting by 5s starting at 5.

17 15 23 42 75 92 80 85 33 95 14

3. Add by skip counting by 5s.

a) $\begin{array}{|c|} \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \end{array} = \underline{\hspace{2cm}}$

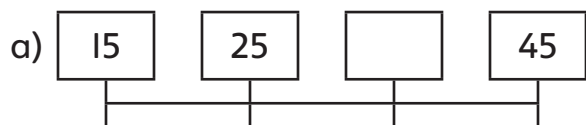
b) $65 + \begin{array}{|c|} \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \end{array} = \underline{\hspace{2cm}}$

4. a) Skip count by 10s. 0 , 10 , 20 , _____ , _____ , _____ , _____ , _____

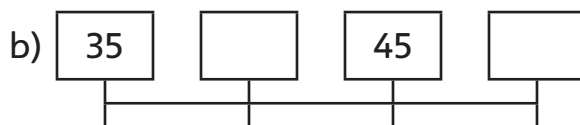
b) Describe any patterns you see in the ones and tens digits.

5. Amir skip counts by 5s or 10s. Write the number he counts by.

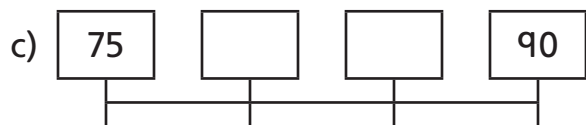
Fill in the missing numbers.



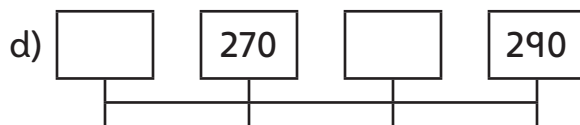
He counts by _____.



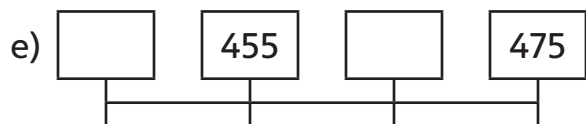
He counts by _____.



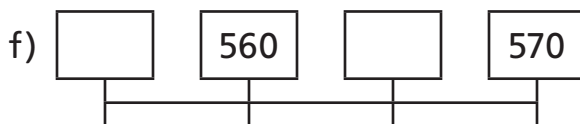
He counts by _____.



He counts by _____.



He counts by _____.



He counts by _____.

6. Explain how you knew which numbers to circle in Question 2.

NS3-3I Skip Counting by 3s

1. Skip count forwards by 3s.

$\begin{array}{c} \textcircled{+3} \\ 0 \end{array}$,
 $\begin{array}{c} \textcircled{+3} \\ 3 \end{array}$,
 $\begin{array}{c} \textcircled{+3} \\ 6 \end{array}$,
 9 , _____ , _____ , _____ , _____ , _____ , _____

2. Add the numbers. Skip count to keep track.

a) $\begin{array}{c} \square \\ 3 \end{array} + \begin{array}{c} \square \\ 3 \end{array} + \begin{array}{c} \square \\ 3 \end{array} + \begin{array}{c} \square \\ 3 \end{array} = \underline{\hspace{2cm}}$

b) $\begin{array}{c} \square \\ 3 \end{array} + \begin{array}{c} \square \\ 3 \end{array} + \begin{array}{c} \square \\ 3 \end{array} + \begin{array}{c} \square \\ 3 \end{array} + \begin{array}{c} \square \\ 3 \end{array} + \begin{array}{c} \square \\ 3 \end{array} = \underline{\hspace{2cm}}$

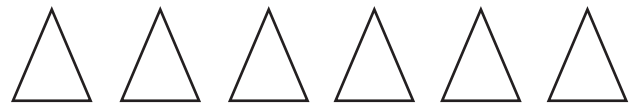
3. Count by 3s.

a) wheels on tricycles



 3 , 6 , _____

b) sides of triangles



 3 , 6 , _____ , _____ , _____ , _____

You say the **multiples** of 3 when you skip count by 3s starting at 0.

0, 3, 6, 9, 12, and so on are multiples of 3.

4. The chart shows some multiples of 3. The first three numbers have a 0 in the tens place.

03	06	09
12	15	18
21	24	27
30	33	36

Describe any patterns you see in the columns.

Hint: Look at the ones digits and the tens digits.

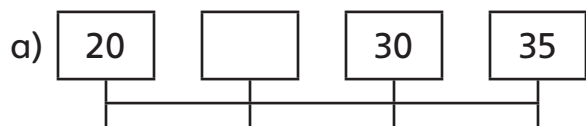
5. The chart shows more multiples of 3.
Look at the ones digits and the tens digits.
Describe any patterns you see in the columns.

30	33	36	39
	42	45	48
	51	54	57
	60	63	66

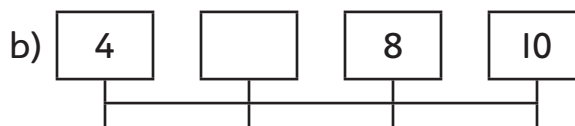
6. Add by skip counting by 3s.

a) $45 + \boxed{} + 3 + 3 + 3 = \underline{\hspace{2cm}}$ b) $60 + \boxed{} + 3 + 3 + 3 = \underline{\hspace{2cm}}$

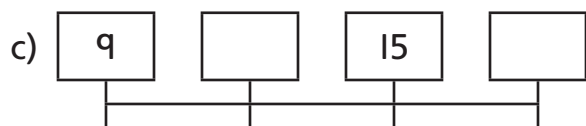
7. Karen skip counts by 2s, 3s, 4s, or 5s. Write the number she counts by.
Fill in the missing numbers.



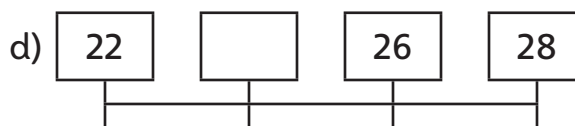
She counts by _____.



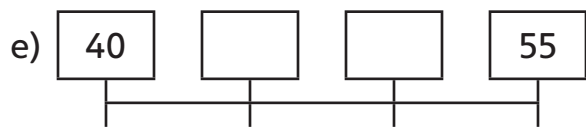
She counts by _____.



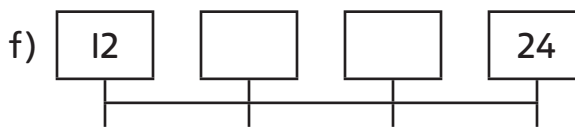
She counts by _____.



She counts by _____.



She counts by _____.



She counts by _____.

8. Ben counts by 3s. What mistakes does he make?

- a) 3, 6, 12, 15, 17, 21 b) 36, 39, 42, 48, 51, 55, 58

BONUS ▶ 66, 63, 60, 58, 55, 51, 45, 42

NS3-32 Multiplication and Repeated Addition

We use **multiplication** as a short way to write addition of the same number.

$$4 \times 3 = \underbrace{3 + 3 + 3 + 3}_{\text{add 3 four times}}$$

This is **repeated addition**.

1. Complete the number sentence using repeated addition.

a) $4 \times 2 = \underline{2 + 2 + 2 + 2}$ b) $3 \times 2 = \underline{\hspace{2cm}}$

c) $3 \times 4 = \underline{\hspace{2cm}}$ d) $4 \times 5 = \underline{\hspace{2cm}}$

e) $2 \times 3 = \underline{\hspace{2cm}}$ f) $1 \times 5 = \underline{\hspace{2cm}}$

g) $5 \times 2 = \underline{\hspace{2cm}}$ h) $3 \times 5 = \underline{\hspace{2cm}}$

i) $2 \times 10 = \underline{\hspace{2cm}}$ j) $4 \times 7 = \underline{\hspace{2cm}}$

2. Complete the number sentence using multiplication.

a) $2 + 2 + 2 = \underline{3 \times 2}$ b) $4 + 4 = \underline{\hspace{2cm}}$

c) $6 + 6 + 6 = \underline{\hspace{2cm}}$ d) $3 + 3 + 3 = \underline{\hspace{2cm}}$

e) $9 + 9 + 9 = \underline{\hspace{2cm}}$ f) $7 + 7 + 7 + 7 + 7 = \underline{\hspace{2cm}}$

g) $8 + 8 + 8 + 8 = \underline{\hspace{2cm}}$ h) $5 + 5 + 5 + 5 + 5 + 5 = \underline{\hspace{2cm}}$

i) $4 + 4 + 4 + 4 = \underline{\hspace{2cm}}$ j) $1 + 1 + 1 = \underline{\hspace{2cm}}$

BONUS ► $100 + 100 + 100 + 100 + 100 + 100 + 100 = \underline{\hspace{2cm}}$

3. Circle the additions that cannot be written as multiplications.

$2 + 2 + 2 + 2$

$3 + 4 + 3 + 3 + 3$

$2 + 5 + 7$

$7 + 7 + 7 + 7$

$4 + 4 + 4 + 4 + 4$

$9 + 9 + 9 + 9 + 9$

$5 + 5 + 5 + 8$

$6 + 6 + 6$

$17 + 17 + 17$

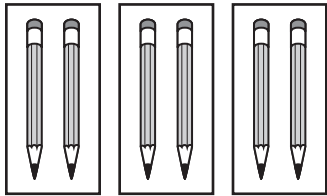
$101 + 101 + 101$

$4 + 4 + 9 + 4$

$3 + 3$

4. Write an addition sentence. Then write a multiplication sentence.

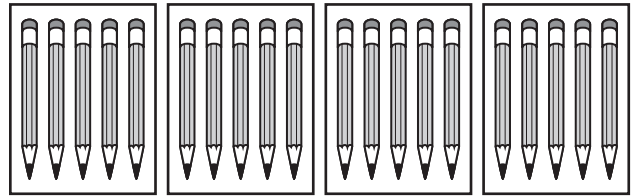
a) 3 boxes 2 pencils in each box



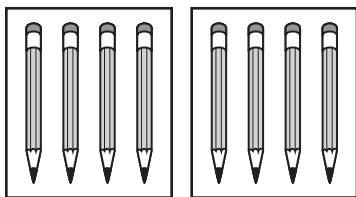
$2 + 2 + 2 = 6$

$3 \times 2 = 6$

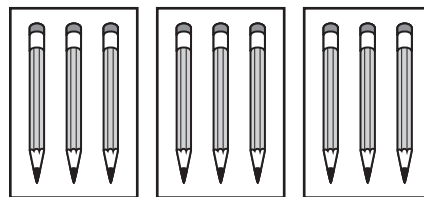
b) 4 boxes 5 pencils in each box



c) 2 boxes 4 pencils in each box



d) 3 boxes 3 pencils in each box



5. Write a multiplication sentence.

a) 3 boxes 4 plums in each box

$3 \times 4 = 12$

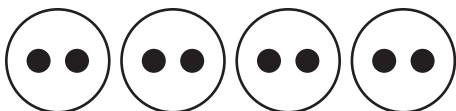
b) 4 boxes 6 apples in each box

c) 3 boxes 5 pens in each box

d) 5 boxes 10 crayons in each box

6. Draw a picture for the number sentence. Finish the number sentence.

a) $2 + 2 + 2 + 2 =$ _____



b) $3 + 3 + 3 + 3 =$ _____

c) $4 + 4 + 4 =$ _____

d) $6 + 6 =$ _____

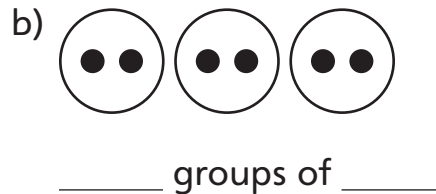
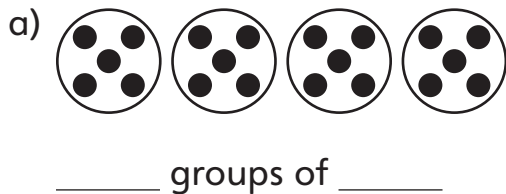
NS3-33 Multiplication and Equal Groups

Show **equal groups** of objects.

- Use big circles for the groups.
- Use dots for the objects.



1. Write what the picture shows.

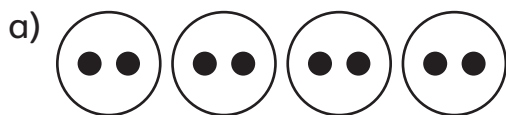


2. Draw equal groups. Use big circles for the groups and dots for the objects.

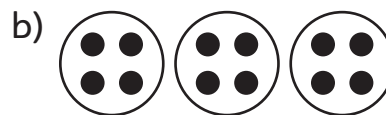
a) 4 groups of 2

b) 3 groups of 4

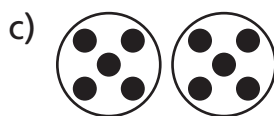
3. Write an addition sentence for the picture. Then write a multiplication sentence.



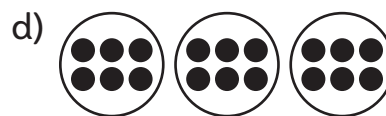
_____ groups of _____
 $2 + 2 + 2 + 2 = \underline{\quad}$
 $4 \times 2 = \underline{\quad}$



_____ groups of _____
 $\underline{\quad} = \underline{\quad}$
 $\underline{\quad} = \underline{\quad}$



_____ groups of _____
 $\underline{\quad} = \underline{\quad}$
 $\underline{\quad} = \underline{\quad}$



_____ groups of _____
 $\underline{\quad} = \underline{\quad}$
 $\underline{\quad} = \underline{\quad}$

4. Draw a picture. Then write a multiplication sentence. Find the total number of dots.

a) 3 groups of 5



_____ big circles
_____ dots in a circle
 $3 \times 5 = 15$

b) 2 groups of 6

_____ big circles
_____ dots in a circle

c) 5 groups of 4

_____ big circles
_____ dots in a circle

d) 6 groups of 3

_____ big circles
_____ dots in a circle

e) 2 groups of 4

_____ big circles
_____ dots in a circle

f) 3 groups of 3

_____ big circles
_____ dots in a circle

g) 4 groups of 3

_____ big circles
_____ dots in a circle

h) 5 groups of 2

_____ big circles
_____ dots in a circle

You can draw a picture for a multiplication sentence.

$3 \times 4 = 12$
 ↙ number of big circles
 ← total number of dots
 ↗ number of dots in a circle



5. How many big circles? How many dots in a circle? Draw the picture and finish the multiplication sentence.

a) $3 \times 2 = \underline{\quad}$

 big circles

 dots in a circle

b) $2 \times 3 = \underline{\quad}$

 big circles

 dots in a circle

c) $4 \times 2 = \underline{\quad}$

 big circles

 dots in a circle

d) $5 \times 3 = \underline{\quad}$

 big circles

 dots in a circle

6. Draw dots and circles to show the problem. Write a multiplication sentence to solve it.

a) Lewis needs lemons for his lemonade stand. He buys 3 bags with 6 lemons in each bag. How many lemons does he buy in total?

b) Ava is planning a soccer tournament. She has 4 teams with 6 players on each team. How many players are there in total?

c) A canoe can hold 3 people. How many people can 4 canoes hold?



7. Make a problem for the multiplication. Draw dots and circles to show the problem. Write the multiplication sentence to solve the problem.

a) 2×3

b) 4×5

c) 2×5

d) 3×10