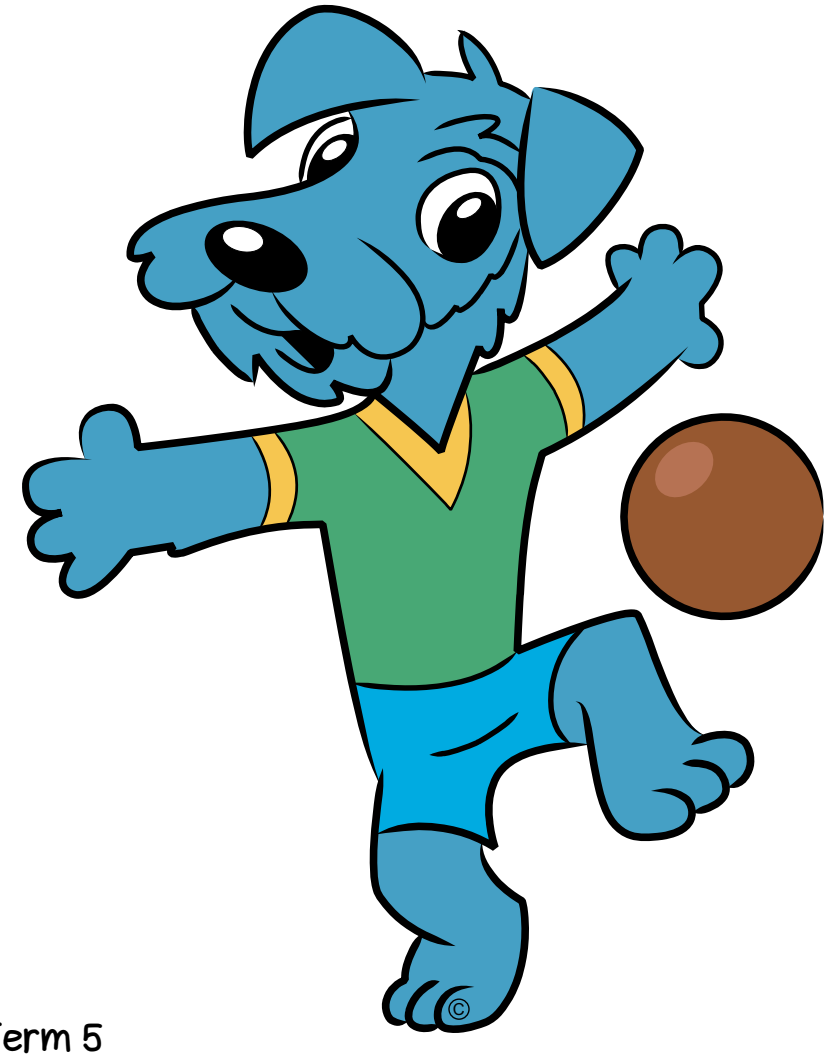
KeeP-uppI Maths Workout

Year 5 - Pack 5



KPIs for Term 5

Convert mixed numbers to improper fractions and vice versa
Add mixed numbers and proper fractions with denominators that are the same and multiples of each other
Subtract proper fractions from mixed numbers with denominators that are the same and multiples of each other
Multiply fractions and mixed numbers by a whole number

Mixed Numbers Workout

Workout A

Convert to mixed numbers

$\frac{5}{4} = \square$ $\quad \frac{9}{4} = \square$

$\frac{5}{3} = \square$ $\quad \frac{8}{3} = \square$

$\frac{7}{5} = \square$ $\quad \frac{11}{5} = \square$

$\frac{9}{5} = \square$ $\quad \frac{19}{6} = \square$

Convert to improper fractions

$1\frac{1}{2} = \square$ $\quad 2\frac{3}{4} = \square$

$1\frac{1}{4} = \square$ $\quad 3\frac{1}{2} = \square$

$1\frac{3}{5} = \square$ $\quad 4\frac{2}{5} = \square$

$1\frac{4}{5} = \square$ $\quad 5\frac{2}{3} = \square$

Adding and Subtracting Fractions and Mixed Numbers Workout

Workout B

$\frac{1}{3} + \frac{1}{6} = \square$ $\quad 1\frac{1}{5} + \frac{2}{5} = \square$ $\quad \frac{1}{4} - \frac{1}{8} = \square$ $\quad 2\frac{4}{5} - \frac{2}{5} = \square$

$\frac{1}{4} + \frac{3}{8} = \square$ $\quad 1\frac{4}{7} + \frac{5}{7} = \square$ $\quad \frac{2}{3} - \frac{1}{6} = \square$ $\quad 1\frac{6}{7} - \frac{2}{7} = \square$

$\frac{1}{2} + \frac{1}{6} = \square$ $\quad \frac{1}{2} + 2\frac{1}{4} = \square$ $\quad \frac{3}{5} - \frac{7}{15} = \square$ $\quad 2\frac{2}{3} - \frac{1}{6} = \square$

$\square = \frac{7}{10} + \frac{1}{5}$ $\quad \square = 1\frac{2}{3} + \frac{4}{9}$ $\quad \square = \frac{3}{4} - \frac{7}{12}$ $\quad \square = 3\frac{1}{4} - \frac{5}{8}$

$\frac{1}{3} + \frac{1}{6} + \frac{3}{12} = \square$ $\quad \frac{3}{4} + 2\frac{5}{8} = \square$ $\quad \frac{1}{5} - \frac{1}{10} - \frac{1}{20} = \square$ $\quad 4\frac{3}{5} - \frac{7}{10} = \square$

Multiplying Fractions Workout

Workout C

$\frac{1}{5} \times 2 = \square$ $\quad \frac{2}{5} \times 3 = \square$ $\quad 1\frac{1}{5} \times 3 = \square$ $\quad 1\frac{2}{5} \times 3 = \square$

$\frac{1}{4} \times 3 = \square$ $\quad \frac{3}{4} \times 2 = \square$ $\quad 2\frac{1}{4} \times 3 = \square$ $\quad 2\frac{1}{2} \times 3 = \square$

$\frac{1}{3} \times 4 = \square$ $\quad \frac{2}{3} \times 4 = \square$ $\quad 3\frac{2}{7} \times 2 = \square$ $\quad 3\frac{4}{7} \times 2 = \square$

$\square = 5 \times \frac{1}{2}$ $\quad \square = 5 \times \frac{3}{7}$ $\quad \square = 2 \times 4\frac{3}{10}$ $\quad \square = 2 \times 4\frac{7}{10}$

Adding and Subtracting Fractions Game

Workout D

You need: (print off the cards)
Game Template A or B
Card Set A for each player.
Card Set B or C for each player.

To play:
Each card set is shuffled and placed face down.
Each player picks TWO cards from Set B (or C) and places them on their Game Template as the denominators.
Each player picks one digit card from their Set A and places it on their Game Template either as a numerator or, in the case of Game B, a whole number.
Each player picks another digit card from their Set A and places it on their Game Template.
Once cards have been placed they can not be moved.
Both players keep picking cards to create fractions or mixed numbers.

To win:
The player who creates the largest total scores one point.
Using the same cards, the players try and create the smallest total. A second point is scored for the smallest total.
The first player to get 10 points wins the Game.

Game Template A

$$\frac{A}{B \text{ or } C} + \frac{A}{B \text{ or } C} =$$

Note
The Game Templates can be adapted by changing the '+' to a '−' to practise subtracting fractions and/or mixed numbers.

Game Template B

$$A\ \frac{A}{B \text{ or } C} + \frac{A}{B \text{ or } C} =$$

Ordering Fractions Game

Set A: 2 - 9 Digit Cards

2	3	4	5
6	7	8	9

Set B

2	4	8	16

Set C

3	6	12	18

Compare Fractions Workout

Workout E

Put different digits in the empty boxes so that the fraction statements are correct.

$$\frac{\square}{7} \times \square \quad \frac{1\square}{\square}$$

$$\frac{\square}{\square} - \frac{\square}{3} = \frac{\square}{9}$$

Are there any boxes that it is impossible to put a digit in? Why?

Are there any boxes that could have any of the digits in them?

Now try to complete both calculations together using the digits 1, 2, 3, 4, 5, 6, 7, 8 and 9 once each.

Which digit did you not use?

Workout F

Calculating with Mixed Numbers Investigation

The answer is

$$6\frac{A}{12}$$

A is an even number

Investigate how to get this answer by:

- adding a mixed number and a proper fraction
- adding a mixed number and more than one proper fraction
- subtracting a proper fraction from a mixed number
- subtracting more than one proper fraction from a mixed number
- multiplying a mixed number by a whole number

Workout G

Word Problem Workout
Measures

1. Colin and Coco are trying to run 6km each week.
   The table shows the distances they have run so far this week.

	Coco	Colin
Monday	$1\frac{3}{5}$km	$1\frac{3}{10}$km
Tuesday	$1\frac{3}{5}$km	$1\frac{3}{10}$km
Wednesday	$1\frac{3}{10}$km	$1\frac{3}{5}$km

   Who has the most distance to run to complete 6km this week?
   What is the difference in their remaining distances as a fraction of a km?

2. Coco uses $1\frac{3}{8}$kg potatoes for a party stew.
   The bag of potatoes had $3\frac{1}{4}$kg potatoes in it.
   What weight of potatoes will be left?

3. A bottle contains $2\frac{1}{4}$ litres of water.
   Colin pours $\frac{5}{8}$ litre of water into a glass.
   What fraction is left in the bottle?

4. KeePuppI wants $4\frac{1}{4}$ kg cheese.
   The pieces of cheese in the shop are $1\frac{1}{4}$kg, $1\frac{5}{8}$ kg, $1\frac{3}{8}$kg
   Is there enough cheese?

5. Coco plants a fast growing sunflower. It grows $7\frac{3}{5}$cm a week.
   How tall will it be in 6 weeks?

6. KeePuppI wants to jog 20km this week.
   He jogs $2\frac{5}{8}$ km per day for 6 days.
   How far does KeePuppI need to run on the seventh day?

Create your own word problems involving fractions.

Matching Workout

Workout H

Match the fraction or mixed number in column A with an operation in column B to make an answer in column C.

A	B	C
$\frac{2}{3}$	$-\frac{4}{9}$	$\frac{7}{12}$
$2\frac{3}{4}$	$+\frac{2}{5}$	$2\frac{3}{8}$
$\frac{7}{10}$	$+\frac{4}{9}$	$1\frac{1}{9}$
$1\frac{2}{5}$	$+\frac{4}{12}$	$1\frac{4}{5}$
$1\frac{1}{4}$	$-\frac{3}{8}$	$1\frac{3}{10}$
$1\frac{1}{3}$	$+\frac{3}{5}$	$\frac{8}{9}$
$\frac{11}{12}$	$-\frac{1}{3}$	$1\frac{7}{12}$

Match the fraction or mixed number in column A with an operation in column B to make an answer in column C

A	B	C
$\frac{2}{3}$	x 3	$6\frac{3}{4}$
$\frac{1}{4}$	x 4	$3\frac{3}{4}$
$\frac{1}{3}$	x 5	$3\frac{1}{3}$
$1\frac{1}{2}$	x 6	6
$1\frac{1}{3}$	x 7	$2\frac{2}{3}$
$1\frac{1}{4}$	x 8	$1\frac{3}{4}$
$\frac{3}{4}$	x 9	8

Create your own Matching Workouts.