

Dice Dilemma

Roll a dice to make numbers to fill in the number comparisons below. Think carefully about where to place each digit to make the number comparisons correct.

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Dice Dilemma

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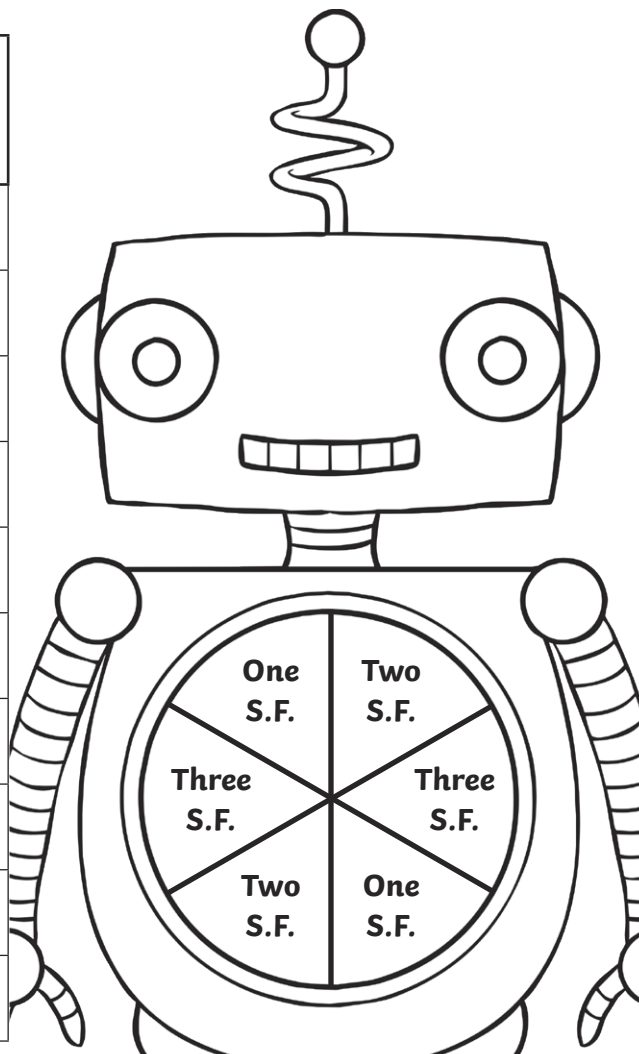


Robot Rounding Extra Challenge

I can round numbers to a required degree of accuracy.



Input	Round to significant figures...	Output
78 654 932		
9 637 395		
837 848		
72 146 036		
63 810 389		
7 472 547		
589 723		
85 567 312		
1 934 104		
301 395		



Significant Figures

Another way of approximating large numbers is to round them to a certain amount of significant figures (S.F.).

Significant means important, or meaningful.

In the number 345 789, the most significant digit, or figure, is 3, as it tells us there are 3 hundred thousands. The next most significant figure is the 4, and so on.

If there is a zero in the number, such as 1034, the most significant figure is the 1, and the second most significant figure is the zero. It is important because it is a place value holder.

When rounding to a certain amount of significant figures, normal rounding rules apply.

For example, 56 784 rounded to two significant figures is 57 000.

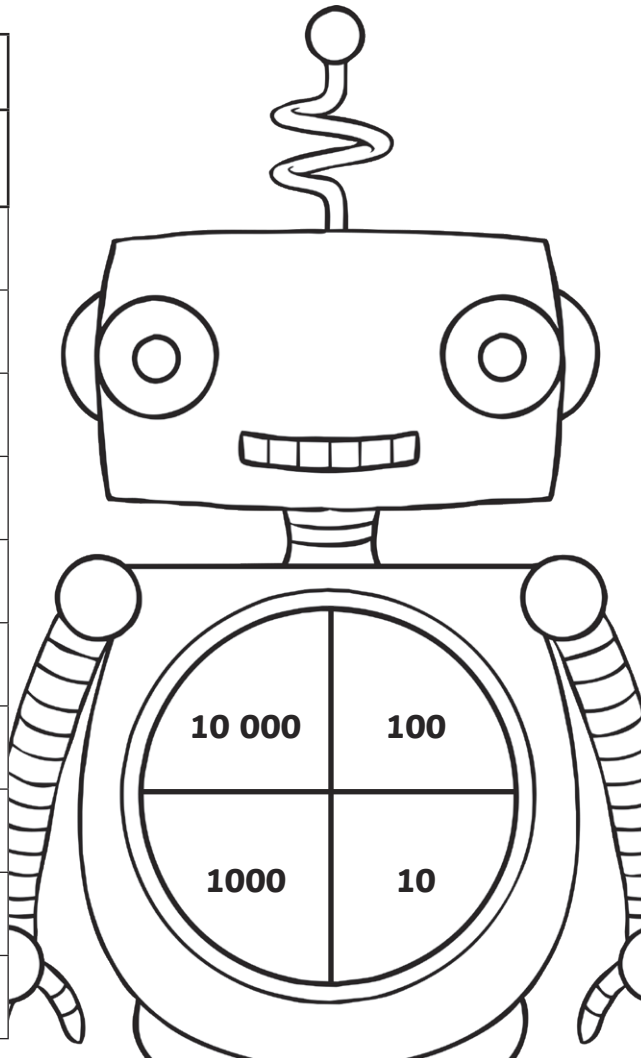


Robot Rounding

I can round numbers to a required degree of accuracy.



Player 1		
Input	Round to the nearest...	Output
427 813		
64 231		
73 453		
982 165		
534 891		
573 356		
48 274		
52 124		
31 465		
386 231		



Player 2		
Input	Round to the nearest...	Ouput
65 284		
838 421		
748 621		
27 458		
384 721		
47 563		
472 274		
54 531		
74 558		
121 745		

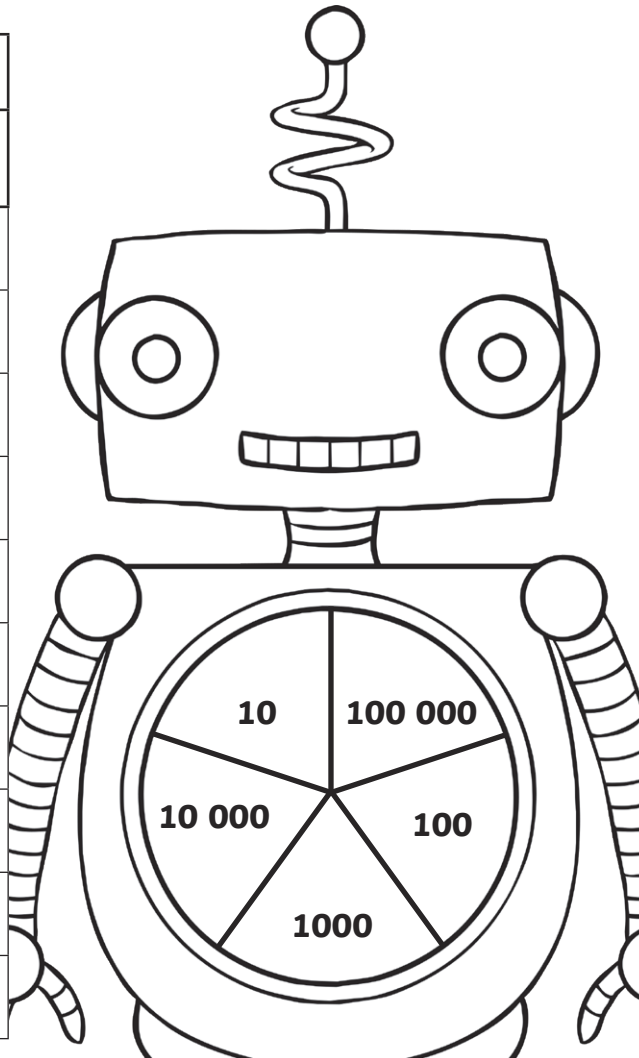


Robot Rounding

I can round numbers to a required degree of accuracy.



Player 1		
Input	Round to the nearest...	Output
427 813		
64 231		
73 453		
982 165		
534 891		
573 356		
48 274		
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Input	Round to the nearest...	Ouput
65 284		
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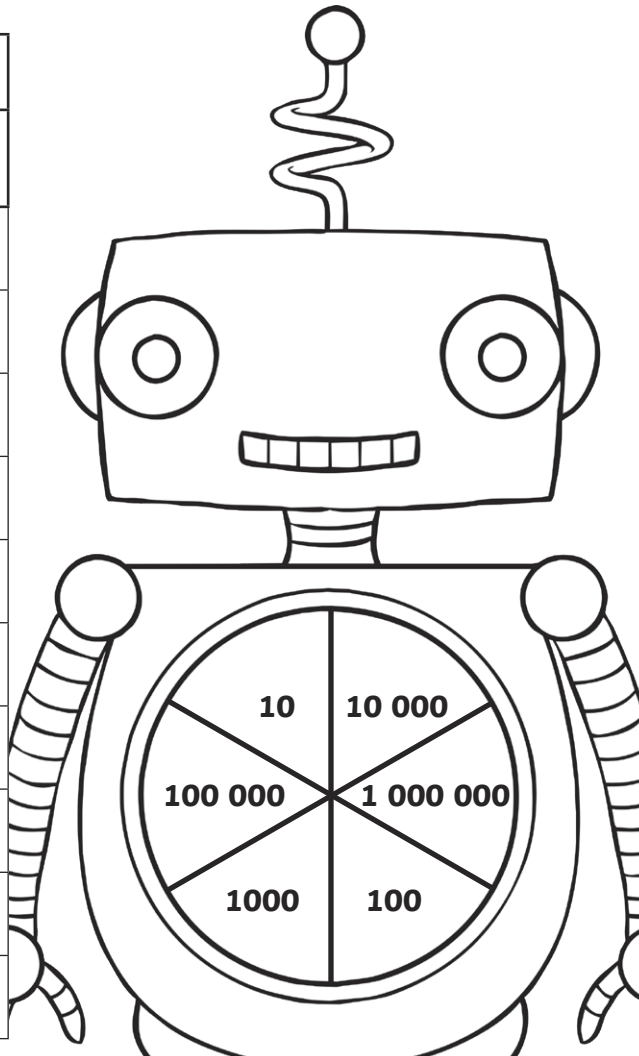


Robot Rounding

I can round numbers to a required degree of accuracy.



Player 1		
Input	Round to the nearest...	Output
427 813		
64 231		
73 453		
982 165		
534 891		
573 356		
48 274		
52 124		
31 465		
386 231		



Player 2		
Input	Round to the nearest...	Ouput
65 284		
838 421		
748 621		
27 458		
384 721		
47 563		
472 274		
54 531		
74 558		
121 745		



Rounding Records

I can round decimal numbers to a required degree of accuracy.



A sports club held an athletics competition. There were several events with different age categories for each event.

Can you round the lengths to the different degrees of accuracy?

Event and Category	Length	Round to the nearest whole number	Round to the nearest tenth
Long jump: Under 11	4.25m		
Long jump: Under 16	3.97m		
High jump: Under 11	0.93m		
High jump: Under 16	0.86m		
Pole Vault: Under 11	2.11m		
Pole Vault: Under 16	3.73m		
Javelin: Under 11	50.07m		
Javelin: Under 16	39.23m		
Shot put: Under 11	8.26m		
Shot put: Under 11	12.35m		



Rounding Records

I can round decimal numbers to a required degree of accuracy.



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Can you round the lengths to the different degrees of accuracy?

Event and Category	Length	Round to the nearest whole number	Round to the nearest tenth	Round to the nearest hundredth
Long jump: Under 11	4.256m			
Long jump: Under 16	3.972m			
High jump: Under 11	0.937m			
High jump: Under 16	0.869m			
Pole Vault: Under 11	2.114m			
Pole Vault: Under 16	3.731m			
Javelin: Under 11	50.074m			
Javelin: Under 16	39.238m			
Shot put: Under 11	8.269m			
Shot put: Under 11	12.351m			



Rounding Records

I can round decimal numbers to a required degree of accuracy.



A sports club held an athletics competition. There were several events with different age categories for each event.

Can you round the lengths to the different degrees of accuracy?

Event and Category	Length	Round to the nearest whole number	Round to the nearest tenth	Round to the nearest hundredth	Round to the nearest thousandth
Long jump: Under 11	4.2595m				
Long jump: Under 16	3.9709m				
High jump: Under 11	0.9376m				
High jump: Under 16	0.8696m				
Pole Vault: Under 11	2.1147m				
Pole Vault: Under 16	3.7318m				
Javelin: Under 11	50.0741m				
Javelin: Under 16	39.2308m				
Shot put: Under 11	8.2699m				
Shot put: Under 11	12.3515m				



Rounding Records - Answers

I can round decimal numbers to a required degree of accuracy.



A sports club held an athletics competition. There were several events with different age categories for each event.

Can you round the lengths to the different degrees of accuracy?

Event and Category	Length	Round to the nearest whole number	Round to the nearest tenth
Long jump: Under 11	4.25m	4m	4.3m
Long jump: Under 16	3.97m	4m	4.0m
High jump: Under 11	0.93m	1m	0.9m
High jump: Under 16	0.86m	1m	0.9m
Pole Vault: Under 11	2.11m	2m	2.1m
Pole Vault: Under 16	3.73m	4m	3.7m
Javelin: Under 11	50.07m	50m	50.1m
Javelin: Under 16	39.23m	39m	39.2m
Shot put: Under 11	8.26m	8m	8.3m
Shot put: Under 11	12.35m	12m	12.4m



Rounding Records - Answers

I can round decimal numbers to a required degree of accuracy.



A sports club held an athletics competition. There were several events with different age categories for each event.

Can you round the lengths to the different degrees of accuracy?

Event and Category	Length	Round to the nearest whole number	Round to the nearest tenth	Round to the nearest hundredth
Long jump: Under 11	4.256m	4m	4.3m	4.26m
Long jump: Under 16	3.972m	4m	4.0m	3.97m
High jump: Under 11	0.937m	1m	0.9m	0.94m
High jump: Under 16	0.869m	1m	0.9m	0.87m
Pole Vault: Under 11	2.114m	2m	2.1m	2.11m
Pole Vault: Under 16	3.731m	4m	3.7m	3.73m
Javelin: Under 11	50.074m	50m	50.1m	50.07m
Javelin: Under 16	39.238m	39m	39.2m	39.24m
Shot put: Under 11	8.269m	8m	8.3m	8.27m
Shot put: Under 11	12.351m	12m	12.4m	12.35m



Rounding Records - Answers

I can round decimal numbers to a required degree of accuracy.



A sports club held an athletics competition. There were several events with different age categories for each event.

Can you round the lengths to the different degrees of accuracy?

Event and Category	Length	Round to the nearest whole number	Round to the nearest tenth	Round to the nearest hundredth	Round to the nearest thousandth
Long jump: Under 11	4.2595m	4m	4.3m	4.26m	4.260m
Long jump: Under 16	3.9709m	4m	4.0m	3.97m	3.971m
High jump: Under 11	0.9376m	1m	0.9m	0.94m	0.938m
High jump: Under 16	0.8696m	1m	0.9m	0.87m	0.870m
Pole Vault: Under 11	2.1147m	2m	2.1m	2.11m	2.115m
Pole Vault: Under 16	3.7318m	4m	3.7m	3.73m	3.732m
Javelin: Under 11	50.0741m	50m	50.1m	50.07m	50.074m
Javelin: Under 16	39.2308m	39m	39.2m	39.24m	39.231m
Shot put: Under 11	8.2699m	8m	8.3m	8.27m	8.270m
Shot put: Under 11	12.3515m	12m	12.4m	12.35m	12.352m

Beanbag Shot Put Activity Guide

I can round decimal numbers to different values.



Follow this guide to compete in the beanbag shot put event. Each member of your group should have a turn. Make sure only 1 member of the group has a turn at once - all other group members should stand back so they don't accidentally get hit.

When it is your turn:

- Stand with your feet on a line, sideways to the direction in which you are aiming.
- Hold the beanbag in your dominant hand.
- Place your hand on your shoulder, so that the beanbag is close to or touching your neck.
- Your elbow should be facing upwards.
- Lean back on your back leg.
- When you are ready, push your weight forward and release the beanbag.
- You should aim to push the beanbag forward rather than throw it.
- Another member of your group should measure the distance (to two decimal places) from the line to your beanbag in metres. For example, your score might be 2.19m.
- You can have 3 goes and record your best score.



Rounding Decimals

I can round decimal numbers to a required degree of accuracy.



Play this game with a partner to use your rounding decimals skills. You will need a 0 - 9 dice between you.

Game 1

Roll the dice once and write the result down:

This is the whole number you will be aiming for.

Now take turns to roll the dice, filling in your grid below. You can complete the boxes in your grid in any order. You are aiming to make a decimal number that rounds to your target whole number.

Player 1

--	--	--	--

Player 2

--	--	--	--

Who was closest to the target whole number? They are the winner!

Game 2

Roll the dice twice and write the result down:

This is the whole number you will be aiming for.

Now take turns to roll the dice and fill in your grid below. You are aiming to make a decimal number that rounds to your target number to the nearest tenth.

Player 1

--	--	--	--

Player 2

--	--	--	--

Who was closest this time?

Game 3

Roll the dice three times and write the result down:

This is the whole number you will be aiming for.

Now take turns to roll the dice and fill in your grid below. You are aiming to make a decimal number that rounds to your target number to the nearest hundredth.

Player 1

--	--	--	--

Player 2

--	--	--	--

Who was closest this time?

$$\frac{1}{8}$$

$$\frac{5}{8}$$

$$\frac{3}{8}$$

$$\frac{2}{8}$$

$$\frac{4}{8}$$

$$\frac{6}{8}$$



$$\frac{3}{10}$$

$$\frac{5}{10}$$

$$\frac{8}{10}$$

$$\frac{7}{10}$$

$$\frac{4}{10}$$

$$\frac{6}{10}$$



$$\frac{2}{8}$$

$$\frac{5}{7}$$

$$\frac{3}{7}$$

$$\frac{1}{7}$$

$$\frac{4}{7}$$

$$\frac{6}{7}$$



$$\frac{1}{12}$$

$$\frac{1}{4}$$

$$\frac{5}{6}$$

$$\frac{7}{12}$$

$$\frac{3}{4}$$

$$\frac{1}{12}$$



$$\frac{5}{24}$$

$$\frac{3}{8}$$

$$\frac{1}{2}$$

$$\frac{3}{4}$$

$$\frac{1}{4}$$

$$\frac{1}{8}$$



$$\frac{1}{2}$$

$$\frac{3}{8}$$

$$\frac{5}{8}$$

$$\frac{3}{4}$$

$$\frac{1}{4}$$

$$\frac{1}{8}$$



563 rounded to the nearest 10

560

570

600

67 845 rounded to the nearest 1000

67 800

67 000

68 000

3462 rounded to the nearest 100

3400

3500

4000

478 652 rounded to the nearest 100 000

480 000

400 000

500 000

4676 rounded to the nearest 10

4680

4670

4660

487 512 rounded to the nearest 10 000

480 000

490 000

470 000

56 531 rounded to the nearest 100

56 000

56 500

56 600

198 402 rounded to the nearest 100 000

100 000

200 000

900 000

382 rounded to the nearest 100

300

400

200

461 rounded to the nearest 10

460

500

470

5230 rounded to the nearest 1000

6000

5000

2000

12 376 rounded to the nearest 10 000

12 400

12 000

10 000

457 548 rounded to the nearest 1000

457 000

458 000

460 000

1873 rounded to the nearest 10

1860

1870

1880

3 475 193 rounded to the nearest 100 000

3 000 000

3 400 000

3 500 000

346 712 rounded to the nearest 100 000

300 000

400 000

500 000

5462 rounded to the nearest 100

5000

5400

5500

376 rounded to the nearest 100

380

300

400

45 rounded to the nearest 10

40

50

60

4658 rounded to the nearest 10

4660

4650

4700

76 234 rounded to the nearest 10 000

76 000 **70 000** **80 000**

1 673 248 rounded to the nearest 10 000

1 700 000 **1 673 000** **1 670 000**

656 984 rounded to the nearest 100 000

700 000 **600 000** **500 000**

836 738 rounded to the nearest 100 000

300 000 **600 000** **800 000**

54 128 rounded to the nearest 100

54 100

54 200

54 000

74 368 rounded to the nearest 10

74 360

74 370

74 380

746 rounded to the nearest 10

740

750

700

235 rounded to the nearest 100

200

300

240

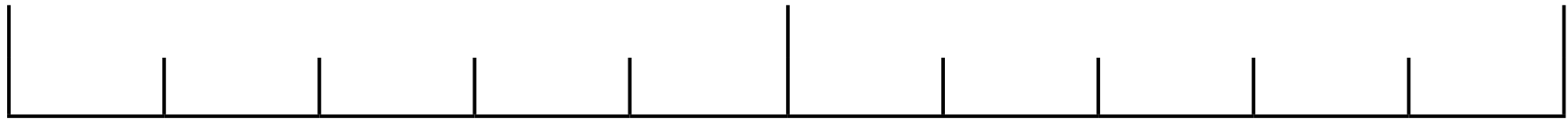
Peg Rounding Cards Answers

563 rounded to the nearest 10	560	570	600
67 845 rounded to the nearest 1000	67 800	67 000	68 000
3462 rounded to the nearest 100	3400	3500	4000
478 652 rounded to the nearest 100 000	480 000	400 000	500 000
4676 rounded to the nearest 10	4680	4670	4660
487 512 rounded to the nearest 10 000	480 000	490 000	470 000
56 531 rounded to the nearest 100	56 000	56 500	56 600
198 402 rounded to the nearest 100 000	100 000	200 000	900 000
382 rounded to the nearest 100	300	400	200
461 rounded to the nearest 10	460	500	470
5230 rounded to the nearest 1000	6000	5000	2000
12 376 rounded to the nearest 10 000	12 400	12 000	10 000
457 548 rounded to the nearest 1000	457 000	458 000	460 000
1873 rounded to the nearest 10	1860	1870	1880
3 475 193 rounded to the nearest 100 000	3 000 000	3 400 000	3 500 000
346 712 rounded to the nearest 100 000	300 000	400 000	500 000
5462 rounded to the nearest 100	5000	5400	5500

376 rounded to the nearest 100	380	300	400
45 rounded to the nearest 10	40	50	450
4658 rounded to the nearest 10	4660	4650	4700
76 234 rounded to the nearest 10 000	76 000	70 000	80 000
1 673 248 rounded to the nearest 10 000	1 700 000	1 673 000	1 670 000
656 984 rounded to the nearest 100 000	700 000	600 000	500 000
836 738 rounded to the nearest 100 000	300 000	600 000	800 000
54 128 rounded to the nearest 100	54 100	54 200	54 000
74 368 rounded to the nearest 10	74 360	74 370	74 380
746 rounded to the nearest 10	740	750	700
235 rounded to the nearest 100	200	300	240

Rounding Number Line

I can round decimal numbers to different values.





Score Card

I can round decimal numbers to different values.



Beanbag Shot Put

Record your group's scores below. Once every member of your group has had a turn, round their scores to the values given.

Child	Score	Round to the nearest 1 or whole number

Tiddlywinks

Record your group's scores below. Once every member of your group has had a turn, round their scores to the values given.

Child	Score	Round to the nearest 1 or whole number

Standing Long Jump

Record your group's scores below. Once every member of your group has had a turn, round their scores to the values given.

Child	Score	Round to the nearest 1 or whole number



Score Card

I can round decimal numbers to different values.



Beanbag Shot Put

Record your group's scores below. Once every member of your group has had a turn, round their scores to the values given.

Child	Score	Round to the nearest:	
		1 or whole number	0.1 or tenth

Tiddlywinks

Record your group's scores below. Once every member of your group has had a turn, round their scores to the values given.

Child	Score	Round to the nearest 1 or whole number

Standing Long Jump

Record your group's scores below. Once every member of your group has had a turn, round their scores to the values given.

Child	Score	Round to the nearest:	
		1 or whole number	0.1 or tenth



Score Card

I can round decimal numbers to different values.



Beanbag Shot Put

Record your group's scores below. Once every member of your group has had a turn, round their scores to the values given.

Child	Score (Raw)	Round to the nearest:	
		1 or whole number	0.1 or tenth

Tiddlywinks

Record your group's scores below. Once every member of your group has had a turn, round their scores to the values given.

Child	Score (Raw)	Round to the nearest 1 or whole number

Standing Long Jump

Record your group's scores below. Once every member of your group has had a turn, round their scores to the values given.

Child	Score (Raw)	Round to the nearest:	
		1 or whole number	0.1 or tenth



Think about this:

Are the highest raw scores in each event always the highest scores when the numbers are rounded?
Does it depend on the value to which you are rounding them? Record your thoughts below.

Standing Long Jump Activity Guide

I can round decimal numbers to different values.



Follow this guide to compete in the standing long jump event. Each member of your group should have a turn. Make sure only 1 member of the group has a turn at once - all other group members should stand back so they don't get in the way.

When it is your turn:

- Stand with your feet on a line with your feet slightly apart.
- Bend your knees.
- Attempt to jump as far as possible, making sure you take off and land on 2 feet.
- You can swing your arms to help you jump further.
- Another member of your group should measure the distance (to two decimal places) from the line to the back of your heels in metres. For example, your score might be 1.35m.
- You can have 3 goes and record your best score.



Tiddlywinks Activity Guide

I can round decimal numbers to different values.



Follow this guide to compete in the tiddlywinks event. Each member of your group should have a turn. Make sure only 1 member of the group has a turn at once.

- Make a line on your table by sticking a small piece of masking tape onto it.
- Each player should have 2 counters.

When it is your turn:

- Place 1 of your counters on one side of the piece of masking tape, with the top edge of the counter just touching the piece of tape.
- Hold your other counter between your thumb and fingers.
- Place this counter on top of the first one.
- Still holding the second counter, press it down on the edge of the first one.
- The first counter should jump forwards over the piece of masking tape.
- Measure the distance from the masking tape to your first counter in centimetres, to one decimal place. For example, your score might be 12.3cm.
- You can have 3 goes and record your best score.

