

Power maths answers for week 4

Day 1:

→ pages 148–150

- 0.7 is greater than 0.5
 - 1.7 is less than 2.5
 - 0.85 is greater than 0.75
 - 0.42 is greater than 0.05
- Answers may vary – between 15 and 25 squares in middle grid.
0.25 is greater than (shaded number between 0.15 and 0.25) which is greater than 0.15.

3.

Order (1st is least fierce, 5th is most fierce)	Dinosaur
1st	Brachiosaurus
2nd	Stegosaurus
3rd	Triceratops
4th	Spinosaurus
5th	T-Rex

4. $0.255 > \frac{251}{1,000}$
 $0.089 < 1.001$
 $\frac{980}{1,000} > \frac{97}{100}$

5. a) 6.701, 1.760, 1.607, 0.176

b) $\frac{15}{100}$, $\frac{126}{1,000}$, $\frac{1}{10}$

Explanations may vary. Encourage children to convert fractions to decimals and then to compare the decimal numbers.

6. 0.249, 0.294, 0.429, 0.492, 0.924, 0.942



Reflect

Methods may vary. First, compare digits in the column of largest value. In this case they are all zero, so then compare the next highest value column. If the digits in this column are the same, then compare digits in the next column and so on.

So in ascending order: 0.453, 0.456, 0.998.

Day 2:

→ pages 151–153

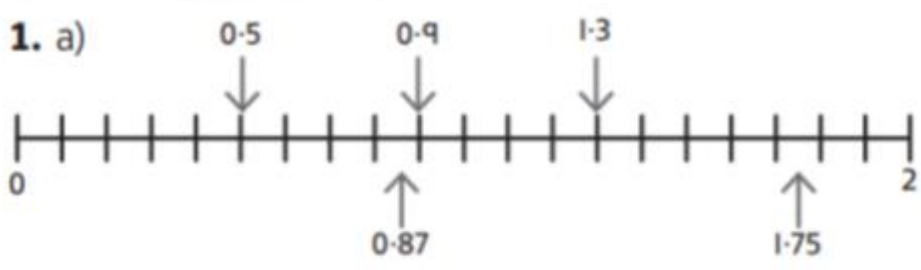
- a) Least $2.21 < 2.25 < 2.3 < 3.1$ Greatest
b) Greatest $1.42 > 0.43 > 0.4 > 0.33 > 0.322$ Least
- Lee has not compared digits in corresponding columns accurately. The digit 1 in 1.627 represents 1 one, whereas the digit 1 in 15.6 is 1 ten. This means that 15.6 is greater than 1.627 even though 1.627 has more digits.
- a) $0.5 < 0.51$ e) $\frac{11}{1,000} < 0.11$
b) $0.51 < 0.6$ f) $\frac{101}{100} > 0.101$
c) $1.6 > 0.511$ g) $0.11 = \frac{110}{1,000}$
d) $1.056 > 1.05$ h) $\frac{1,001}{1,000} < 1.01$
- Place value counters drawn:
Three 0.1 counters and some 0.01 and/or 0.001 counters (with total value less than 0.1)
One 0.1 counter, one 0.01 counter and from two to nine 0.001 counters
- a) Numbers circled: $2 \frac{51}{100}$ $2 \frac{52}{100}$ 2.501
b) Answers will vary, numbers must be between 2.5 and 2.52, for example 2.51 and $\frac{2,507}{1,000}$.
- There are many possible answers, for example
Less than 2.12: 0.005, 0.014, 1.111, 2.102, 2.003
Greater than 2.12: 2.201, 2.21, 3.002, 3.101, 4.01
To find all possibilities, encourage children to list answers in a methodical way such as in a particular order.

Reflect

Children should disagree. Explanations may vary, for example both numbers have 3 ones and 3 tenths, however, 3.309 has no hundredths, whereas 3.31 has 1 hundredth. So, this means that 3.31 is greater than 3.309.

Day 3:

→ pages 154–156



- b. 0.9 rounds to to the nearest whole number.
1.3 rounds to to the nearest whole number.
0.87 rounds to to the nearest whole number.
0.5 rounds to to the nearest whole number.
1.75 rounds to to the nearest whole number.

2. 3.9 cm rounds to 4 cm.
5.2 cm rounds to 5 cm.
3.5 cm rounds to 4 cm.
4.4 cm rounds to 4 cm.

3. a) 5.23 rounds to 5.2 to the nearest tenth.
b) Explanations will vary. First, identify the tenths the number is between. Then look at the hundredths digit, if it is less than 5 then the number rounds down to the smaller tenth. If it is 5 or more then it rounds up to the next tenth.

4.

Number	Rounded to nearest whole number	Rounded to the nearest tenth
1.19	1	1.2
10.19	10	10.2
0.75	1	0.8
100.75	101	100.8
100.03	100	100
100.037	100	100

5. When rounding to the nearest tenth, it means the nearest multiple of tenths – therefore there would not be a digit in the hundredths column after rounding, so the answer should be 2.8.
6. a) The number is in the range 8.45 to 8.5 (including 8.45 but not including 8.5).
 b) 0.529 rounded to the 1 decimal place is 0.5
 0.592 rounded to the 1 decimal place is 0.6
 2.950 rounded to the 1 tenth place is 3.0

Reflect

2.91 to the nearest tenth is 2.9 and to the nearest whole number is 3.

Methods may vary – encourage children to show rounding on a number line as well as using what they know about the digits to help them decide whether to round up or down.

Day 4:

→ pages 157–159

1. a) 33 out of 100 are shaded. That is 33%.
b) 24 out of 100 are shaded. That is 24%.
2. a) 4 squares shaded
b) 96 squares shaded
c) 24 squares shaded
3. Diagrams circled: Bead string Circles divided into tenths
4. Children should not agree with Olivia as some children may wear wellies and a scarf. 112% is more than all the children! The only certain facts are that 61% of children wear wellies and 51% wear scarves.
5. a) 3 squares shaded.
70% is not shaded.
b) $2\frac{1}{2}$ squares shaded in one colour and $2\frac{1}{2}$ squares shaded in another colour.
50% is not shaded. 50% is shaded.
c) Check 11 mm is one colour, 22 mm is a second colour and 33 mm is a third colour.
34% is not shaded
d) $5 \times 20\% = 100\%$

Reflect

Answers may vary. Encourage children to explain using a pictorial representation, for instance, shading 42 squares out of 100. Children should recognise that 42% is between $\frac{1}{4}$ and $\frac{1}{2}$ and is closer to $\frac{1}{2}$.

