

Year 10 - Worksheet 1



EQUIVALENT FRACTIONS

Find 3 equivalent fractions for each of the following:

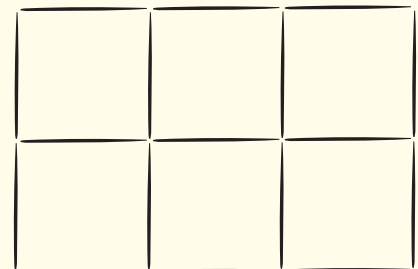
1. $\frac{1}{4}$	6. $\frac{3}{7}$
2. $\frac{1}{3}$	7. $\frac{4}{9}$
3. $\frac{1}{5}$	8. $\frac{5}{8}$
4. $\frac{2}{3}$	9. $\frac{5}{7}$
5. $\frac{3}{4}$	10. $\frac{5}{6}$

SMALLEST TO BIGGEST

Group these numbers from smallest to largest:

1. 1.01, 1.1, 1.101
2. 2.43, 2.34, 2.034
3. 34.16, 34.016, 34.61
4. 21.27, 21.72, 21.072
5. 13.75, 1.375, 137.6
6. 141.2, 14.12, 14.21
7. 20.71, 207.1, 201.7
8. 0.456, 0.465, 0.645
9. 0.017, 0.0099, 0.071
10. 1.008, 1.010, 1.001

PUZZLE



The arrangement above is made of 17 sticks.

Remove 5 sticks to leave 3 squares the same size as the original.

NUMERACY STRATEGIES (ADDITION)

Add by breaking down into powers of 10.

$$\begin{aligned} \text{e.g. } 38 + 73 &= 30 + 8 + 70 + 3 \\ &= 100 + 11 \\ &= 111 \end{aligned}$$

1. $51 + 19$
2. $23 + 85$
3. $121 + 73$
4. $173 + 24$
5. $135 + 48$
6. $214 + 135$
7. $156 + 281$
8. $1321 + 1525$
9. $2715 + 1272$
10. $1731 + 2256$

5 QUICK QUESTIONS

Use any strategy but not a calculator.

1. $143 + 215$
2. $67 - 34$
3. 31×4
4. $48 \div 6$
5. Round 3.926 to 1 decimal place.

NUMERACY STRATEGIES (MULTIPLICATION)

Multiply by breaking down into easier parts. e.g. $7 \times 14 = 7 \times (10 + 4)$
 $= 7 \times 10 + 7 \times 4$
 $= 70 + 28$
 $= 98$

1. 8×13

6. 7×13

2. 5×14

7. 3×1421

3. 7×19

8. 5×1213

4. 6×35

9. 6×1314

5. 7×45

10. 9×333

5 QUICK QUESTIONS

Use any strategy but not a calculator.

1. $-2 + -3$

2. -2×-3

3. $\frac{2}{5} + \frac{1}{5}$

4. $\frac{2}{3} \times \frac{1}{5}$

5. $\frac{2}{3} \div \frac{1}{5}$

REMEMBER LAST YEAR'S WORK

Which is the most sensible statement? Choose from the 4 alternatives.

1. Keith's 20 year old brother is (1.2), (1.8), (2.6) or (6) metres tall.

2. Samantha's baby sister weighs (30 gms), (300 gms), (3 kg) or (30 kg)?
Her older sister weighs (30 gms), (300 gms), (3 kg) or (30 kg)?

3. Wayne's car averages 9.5 litres of fuel for every 100 km travelled. On his holiday he expects to drive 700 km and estimates he will need about (\$30), (\$60), (\$90), (\$120) for petrol which costs \$1.80 per litre.

Calculate the answers to the following:

4. George sets off on a training ride at 1.50pm and cycles for $4\frac{1}{2}$ hours. What time did he stop?

5. A plane is due to leave Wellington Airport at 20:50 and arrive at its destination at 03:05 the next day. It actually arrives 45 minutes early. At what time does it arrive?

NUMBER APPLICATIONS

1. A team in the Australian soccer league has 17 points. They have played 15 games. For a win there is 3 points, for a draw there is 1 point.

What are the various combinations (of Win, Draw or Lose) that would have summed to 17?
