Using a conversion graph Name _____ Date _____
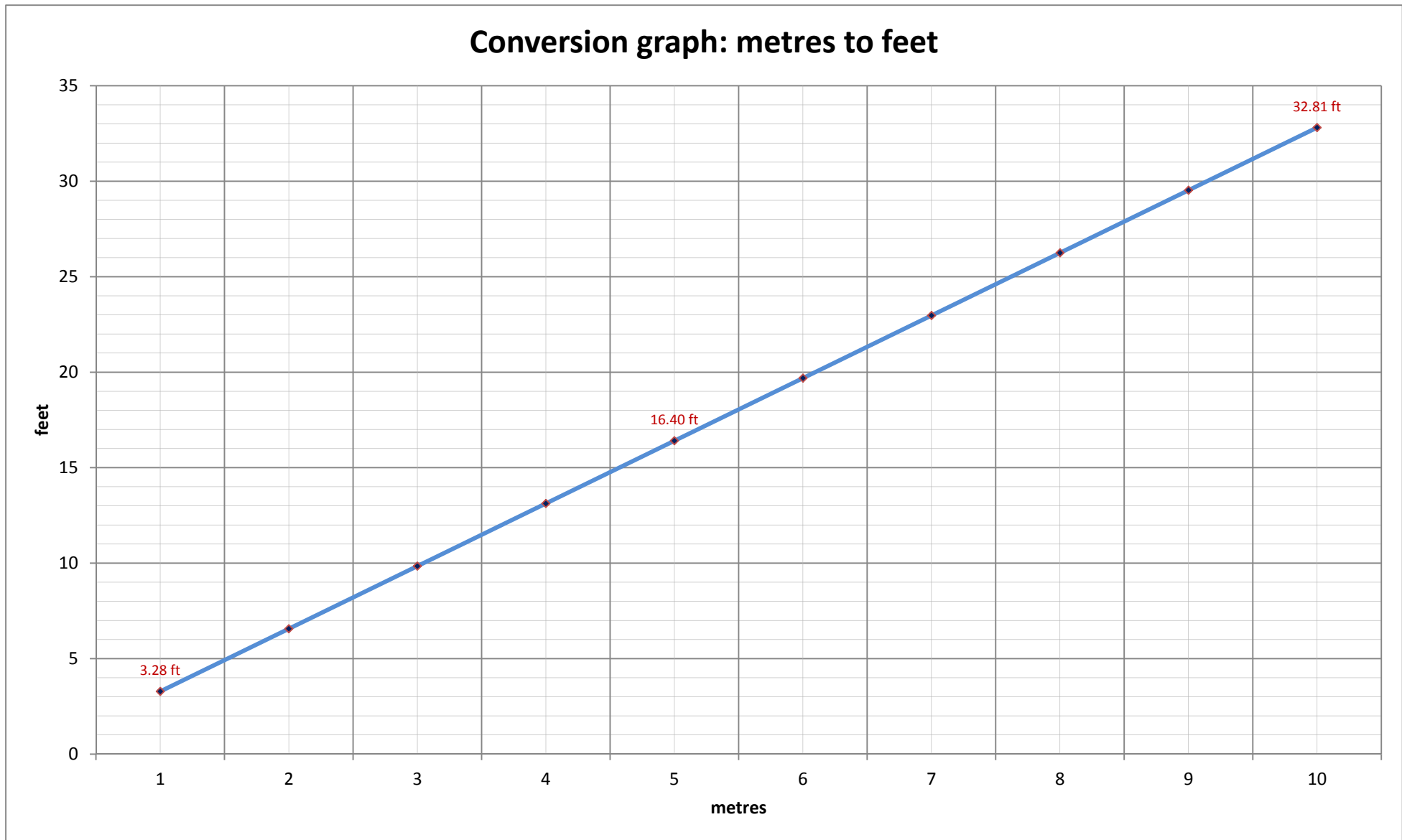
The line graph below can be used for converting between length in metres (m) and length in feet (ft).

skills
w o r k s h o p

Conversion graph: metres to feet

feet (y-axis, 0 to 35)
metres (x-axis, 1 to 10)

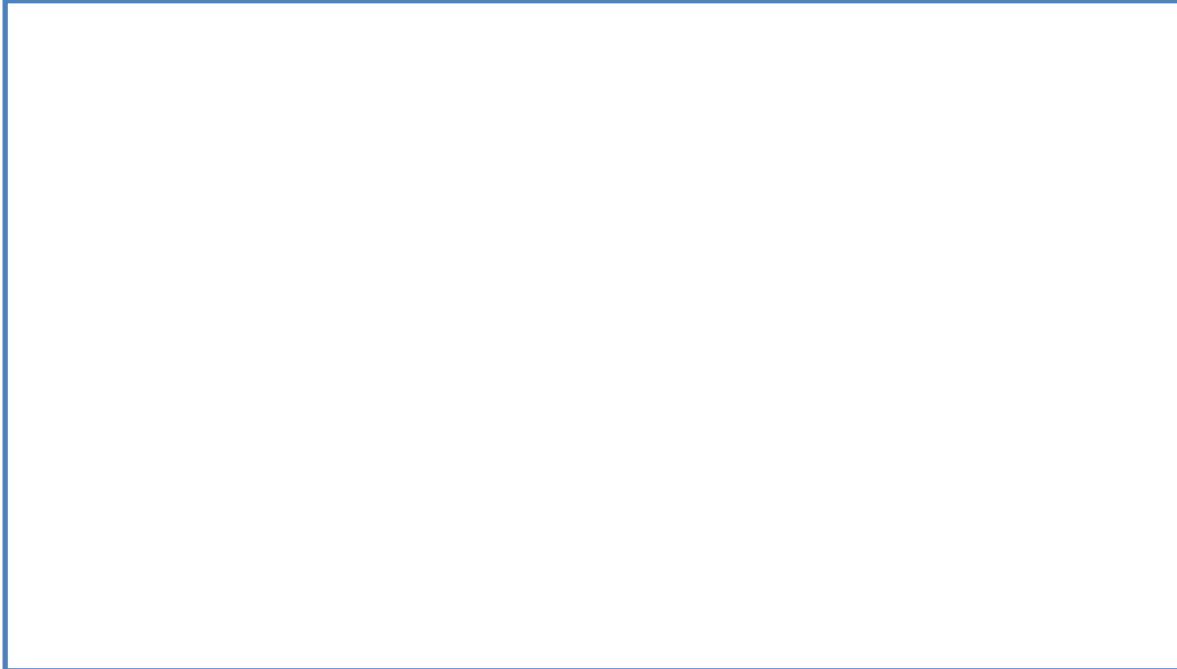Data points labelled: 3.28 ft, 16.40 ft, 32.81 ft
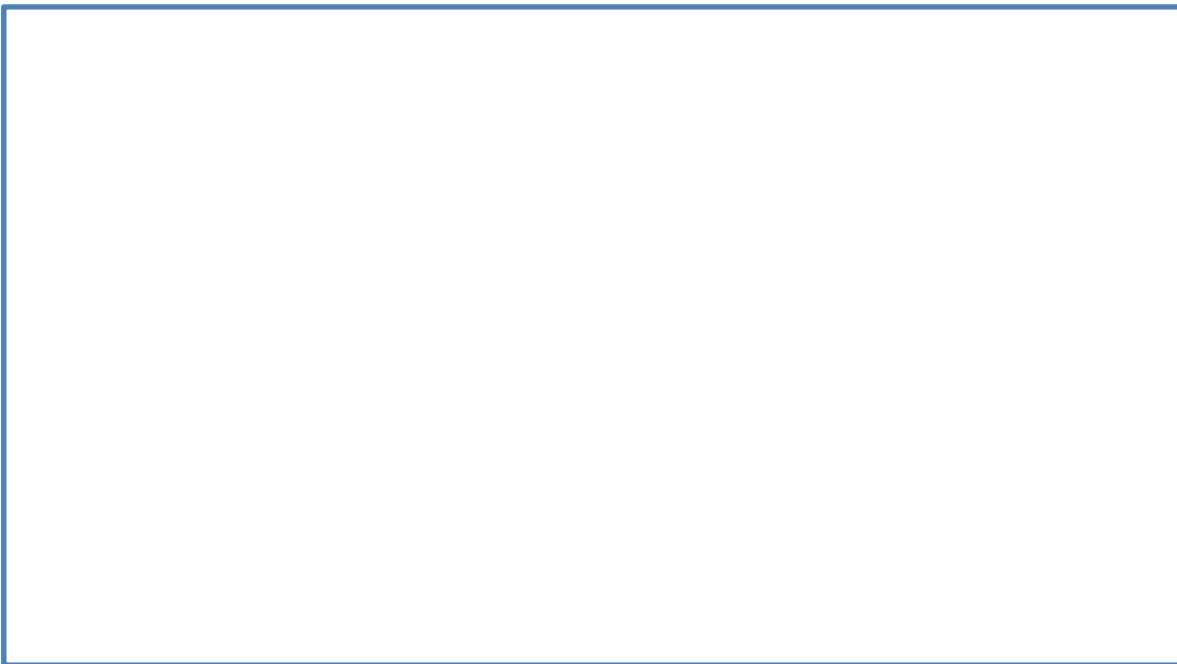
Using a conversion graph

Name _____ Date _____

Use the **graph** and/or the formula **1 foot equals 12 inches** to answer the questions.

1. John is **5 ft 6 in** tall. Convert this measure to <u>feet</u> only. **(Your answer will be a decimal)**

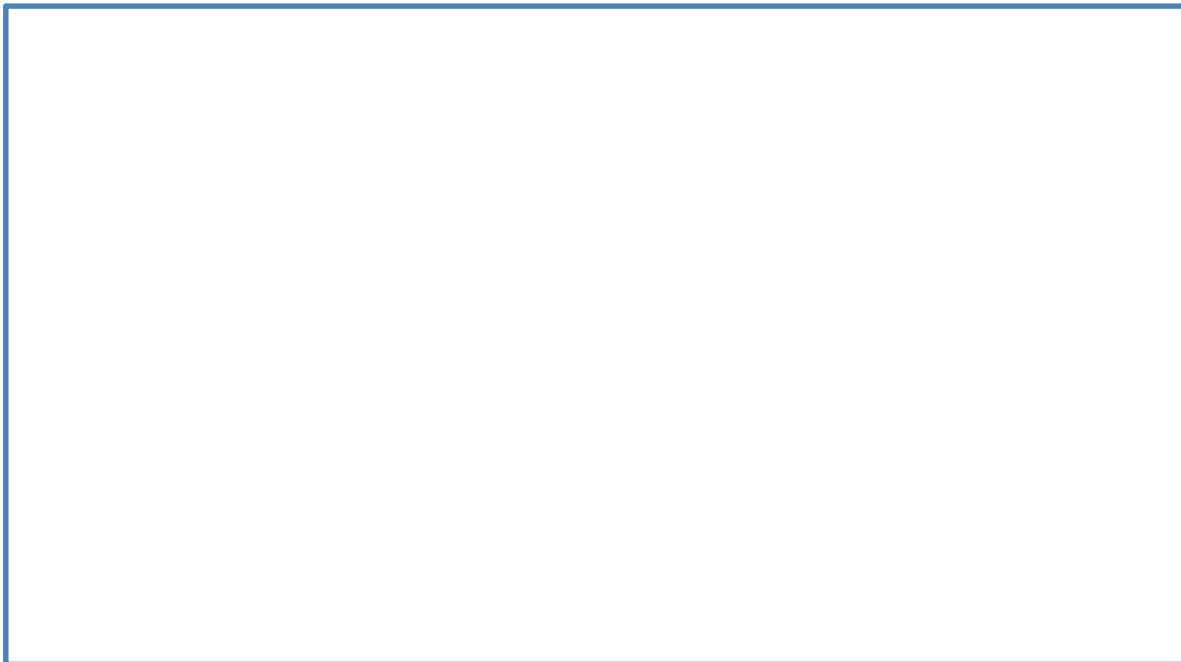2. Mark is **1.85 m** tall. Who is taller, John or Mark?

3. The length of Jemima's desk is **9 ft 5 in**. What is its length to **the nearest metre**?

4. Jemima swims 0.5km each morning. What is this to the nearest foot?
   (In your calculation, use the accurate conversion information given for 10m on the graph).

You must show all your working out – even if you use a calculator.

Using a conversion graph
Answers and curriculum mapping

FUNCTIONAL MATHEMATICS Coverage and Range statements (indicative only)

Coverage and range statements provide an indication of the type of mathematical content candidates are expected to apply in functional contexts. Relevant content can also be drawn from equivalent National Curriculum levels and the Adult Numeracy standards.

✔ *indicates the main coverage and range skills covered in this resource, although these may vary with the student group and how the resource is used by the teacher.*

Level 1

a) Understand and use whole numbers and understand negative nos. in practical contexts
b) Add, subtract, multiply and divide whole numbers using a range of strategies
c) Understand and use equivalences between common fractions, decimals and percentages ✔
d) Add and subtract decimals up to 2 decimal places
e) Solve simple problems involving ratio, where one number is a multiple of the other
f) Use simple formulae expressed in words for one- or two-step operations ✔

g) Solve problems requiring calculation, with common measures, including money, time, length, weight, capacity and temperature
h) Convert units of measure in the same system
i) Work out areas and perimeters in practical situations
j) Construct geometric diagrams, models and shapes
k) Extract and interpret information from tables, diagrams, charts and graphs ✔
l) Collect and record discrete data and organise and represent information in different ways
m) Find mean and range
n) Use data to assess the likelihood of an outcome

Level 2

a) understand and use positive and negative numbers of any size in practical contexts
b) carry out calculations with numbers of any size in practical contexts, to a given number of decimal places ✔
c) understand, use and calculate ratio and proportion, including problems involving scale
d) understand and use equivalences between fractions, decimals and percentages
e) understand and use simple formulae and equations involving one or two operations
f) recognise and use 2D representations of 3D objects

g) find area, perimeter and volume of common shapes
h) use, convert and calculate using metric and, where appropriate, imperial measures ✔
i) collect and represent discrete and continuous data, using information and communication technology (ICT) where appropriate
j) use and interpret statistical measures, tables and diagrams, for discrete and continuous data, using ICT where appropriate. ✔
k) use statistical methods to investigate situations
l) use probability to assess the likelihood of an outcome

References

Ofqual (2009), *Functional Skills criteria for Mathematics: Entry 1, Entry 2, Entry 3, level 1 and level 2.*

http://www.ofqual.gov.uk/ This resource also covers many **adult numeracy curriculum** elements.

http://www.excellencegateway.org.uk/sflcurriculum including

HD1/L2.1: Extract and interpret discrete and continuous data from tables, diagrams, charts and line graphs

MSS1/L2.6: Calculate with units of measure between systems, using conversion tables, graphs and scales, and approximate conversion factors

For related resources and further curriculum links please visit the download page for this resource at

www.skillsworkshop.org

Answer Sheet

1	5.5 ft	**3**	3 m
2	Mark is taller, as 1.85 m = 1.85 m*3.28 ft/m (2 d.p.) = 6.068 ft > 5.5 ft	**4**	10m = 32.81 ft (see graph) 0.5km = 500m. 500/10 = 50 32.81 x 50 = 1640.5 (1641 ft)