

 MATHS TEACHER HUB
GCSE Higher revision sheet - 4

1. Work out the reciprocal of $1\frac{4}{5}$

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2. On a menu there are 9 starters and 14 main courses and some desserts. In total there are 504 different combinations to have. How many desserts are on the menu?

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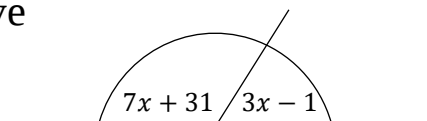
3. Simplify $64^{\frac{2}{3}}$

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4. State the gradient of the line $2y + 4x = 9$

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5. Solve



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6. Rationalise $\frac{5}{\sqrt{2}}$

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7. Write down the exact value of $\sin 60^\circ$

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8. Factorise $2x^2 + 5x - 12$

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9. $f(x) = x^2 + 2$

Work out $f^{-1}(11)$

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10. Work out an estimate for the mean

Time (Seconds)	Frequency
$40 < s \leq 60$	16
$60 < s \leq 80$	24
$80 < s \leq 100$	20

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11. Leona bought a new phone for \$850.
The phone will depreciate by 32% each year.
How much will it be worth in 3 years time?

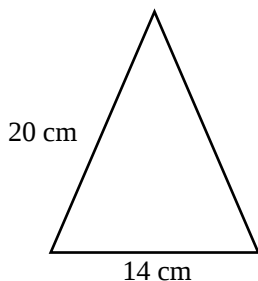
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12. A train is traveling at 70mph.
In total it travels 157.5 miles.

How long does the journey take in hours and minutes?

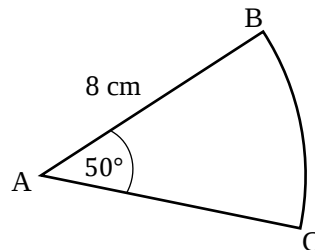
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13. Here is an isosceles triangle.
Work out the area.



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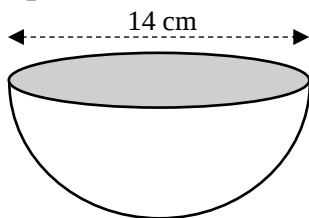
14. ABC is a sector of a circle.



Work out the area of the sector.

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15. Work out the surface area of the hemi-sphere.



Surface
area of a
sphere $= 4\pi r^2$

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16. Solve these simultaneous
equations

$$x^2 + y^2 = 34$$

$$x - y = 2$$

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