Lesson and Worksheet Format

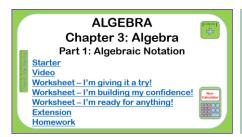
Each topic is colour coded...

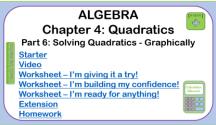
Green for approx. GCSE grades 1-3

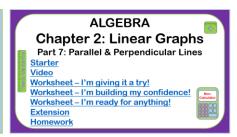
Blue for approx. GCSE grades 4&5

Purple for approx. GCSE grades 6-9

Green & Blue for FOUNDATION tier Blue & Purple for HIGHER tier







Choose the <u>lesson</u>, <u>accompanying</u> <u>worksheet</u> and <u>video</u> by:

- TOPIC select 'All'
- GCSE TIER select 'Foundation' or 'Higher'
 - GCSE GRADE select '1-3' '4&5' or '6-9'

Each lesson takes the following format...

Slide 1

- Subject Area, Chapter and Part (Lesson Title)
- Quick links to specific parts of the lesson
- Links back to this page appear regularly throughout the lesson
- Calculator / Non-Calculator. This indicates whether a calculator is necessary or not for most of the questions, it acts as a guidance only.

Slide 2

- Starter task
- Questions relating to 16 different areas of core skills relevant to that level
- Beneficial for a productive start to a lesson whilst promoting retrieval of previous learning

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NUMBER

Chapter 4: Fractions Part 3: Ordering Fractions

Worksheet – I'm giving it a try! Worksheet – I'm building my confidence! Worksheet – I'm ready for anything!

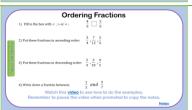
Slide 3

Solutions to slide 2



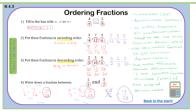
Slide 4

- Notes page, these questions are discussed and completed in the video
- Questions get progressively more difficult and directly relate to the differentiated tasks in slides 6-11
- Link to video



Slide 5

 Annotated notes and questions from slide 4 and as discussed in the video



Slide 6

- 'I'm giving it a try!'
- The first, and most straight-forward, of the 3 tasks
- These differentiated tasks allow students to build up their confidence as they progress through the different levels of difficulty
- Many of these first tasks start with questions that are similar where only small details are changed, this helps students to develop a deeper mathematical understanding



Slide 7

- Solutions to slide 6
- Students are prompted to evaluate their own understanding and confidence after each of the 3 tasks with space to make reflective notes and stars to shade creating a clear visual selfassessment



Slide 8

- 'I'm building my confidence!'
- The second, and slightly more difficult, of the 3 tasks
- These differentiated tasks allow students to build up their confidence as they progress through the different levels of difficulty



Slide 9

- Solutions to Slide 8
- Students are prompted to evaluate their own understanding and confidence after each of the 3 tasks with space to make reflective notes and stars to shade creating a clear visual selfassessment



Slide 10

- 'I'm ready for anything!'
- The third, and most challenging, of the 3 tasks
- These differentiated tasks allow students to build up their confidence as they progress through the different levels of difficulty



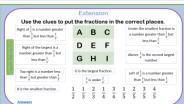
Slide 11

- Solutions to slide 10
- Students are prompted to evaluate their own understanding and confidence after each of the 3 tasks with space to make reflective notes and stars to shade creating a clear visual selfassessment



Slide 12

- Extension task
- This task could be a problem-solving task, a puzzle, or an openended task, an exam-style question, a real-life context (bigger picture) question, or a task that interleaves the topic being learnt with other areas of Mathematics
- The extension tasks are written to provide challenge and encourage deep-thinking, giving students an opportunity to apply their knowledge to more complex questions



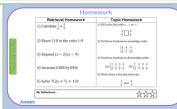
Slide 13

Solutions to slide 12



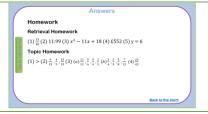
Slide 14

- Homework task comprising of 2 halves
- 5 core skills questions relevant to that level
- A task relating to the lesson. This section is often very similar to the questions that were on slides 4 and 5 and discussed during the video. Students, if struggling with the homework, can rewatch the video thus promoting independent learning
- Students are, once again prompted to evaluate their own understanding and confidence with space to make reflective notes and stars to shade creating a clear visual self-assessment



Slide 15

Solutions to slide 14



Each <u>accompanying worksheet</u> takes the following format...

Note: each section of the worksheet appears on a separate page.

This is to allow for individual choice when printing.

Page 1 Ordering Fractions X Student copy of the notes page seen in the video and on slides 4/5 ding orden $\frac{3}{4}$, $\frac{7}{12}$, $\frac{5}{6}$ Lesson title and code appears on all worksheet pages QR code link to video in descending order: $\frac{2}{2}$, $\frac{5}{10}$, $\frac{4}{5}$ Calculator / Non-Calculator. This indicates whether a calculator is between: $\frac{1}{2}$ and $\frac{3}{2}$ necessary or not for most of the questions, it acts as a guidance Page 2 Student copy of 'I'm giving it a try!' $\omega \frac{1}{3} \Box \frac{2}{3} \omega \frac{2}{3} \Box \frac{2}{3} \omega \frac{1}{3} \Box \frac{2}{3} \omega \frac{1}{3} \Box \frac{2}{3} \omega \frac{4}{3} \Box \frac{6}{3} \omega \frac{1}{3} \Box \frac{2}{3} \Box$ The first, and most straight-forward, of the 3 tasks seen on slide 6 $(a) \ \frac{1}{3} \cdot \frac{4}{5} \cdot \frac{3}{5} \ (b) \ \frac{5}{7} \cdot \frac{2}{7} \cdot \frac{6}{7} \cdot \frac{4}{7} \ (c) \ \frac{7}{6} \cdot \frac{3}{6} \cdot \frac{4}{6} \cdot \frac{2}{6} \ (d) \ \frac{9}{12} \cdot \frac{12}{12} \cdot \frac{7}{12} \cdot \frac{19}{12} \ (e) \ \frac{1}{9} \cdot \frac{10}{7} \cdot \frac{9}{7} \cdot \frac{2}{7} \cdot \frac{2}{7} \cdot \frac{1}{7} \cdot \frac{1} \cdot \frac{1}{7} \cdot \frac{1}{7} \cdot \frac{1}{7} \cdot \frac{1}{7} \cdot \frac{1}{7} \cdot \frac{1}{7} \cdot$ with self-evaluation section seen on slide 7 $|a| \stackrel{4}{=} \stackrel{1}{=} \stackrel{1}{=} \stackrel{1}{=} (b) \stackrel{4}{=} \stackrel{2}{=} \stackrel{4}{=} \stackrel{1}{=} (c) \stackrel{7}{=} \stackrel{8}{=} \stackrel{1}{=} \frac{1}{2} |b| \stackrel{6}{=} \frac{10}{10} \stackrel{5}{=} \stackrel{9}{=} (c) \stackrel{9}{=} \stackrel{9}{=$ (a) $\frac{1}{2}$ and $\frac{1}{3}$ (b) $\frac{1}{4}$ and $\frac{1}{5}$ (c) $\frac{3}{9}$ and $\frac{1}{9}$ (d) $\frac{4}{10}$ and $\frac{4}{10}$ (a) $\frac{1}{4}$ and $\frac{4}{8}$ Page 3 Student copy of 'I'm building my confidence!' The second, and slightly more difficult, of the 3 tasks seen on $(a) \ \frac{1}{2} \cdot \frac{3}{4} \cdot \frac{1}{4} \cdot (b) \ \frac{2}{3} \cdot \frac{2}{9} \cdot \frac{5}{9} \cdot \frac{1}{3} \cdot (c) \ \frac{3}{4} \cdot \frac{3}{8} \cdot \frac{2}{4} \cdot \frac{5}{8} \cdot (d) \ \frac{7}{29} \cdot \frac{4}{20} \cdot \frac{6}{20} \cdot \frac{1}{4} \cdot (e) \ \frac{1}{2} \cdot \frac{5}{9} \cdot \frac{3}{4} \cdot \frac{3}{8}$ slide 8 with self-evaluation section seen on slide 9 $(a) \ \ \frac{4}{6}, \frac{2}{6}, \frac{1}{6}, (b) \ \ \frac{2}{3}, \frac{5}{10}, \frac{3}{10}, \frac{3}{10}, \frac{3}{10}, (c) \ \ \frac{2}{3}, \frac{1}{3}, \frac{4}{9}, \frac{1}{9}, (c) \ \ \frac{11}{12}, \frac{8}{12}, \frac{5}{6}, \frac{3}{6}, (e) \ \frac{7}{13}, \frac{9}{10}, \frac{2}{9}, \frac{2}{9}$ (a) $\frac{1}{6}$ and $\frac{1}{3}$ (b) $\frac{2}{8}$ and $\frac{6}{10}$ (c) $\frac{2}{9}$ and $\frac{2}{3}$ (d) $\frac{9}{12}$ and $\frac{3}{8}$ (e) $\frac{3}{18}$ and $\frac{1}{2}$ Page 4 Student copy of 'I'm ready for anything!' The third, and most challenging, of the 3 tasks seen on slide 10 $(a) \ \frac{1}{12}, \frac{1}{4}, \frac{1}{6} \ (b) \ \frac{1}{9}, \frac{5}{6}, \frac{5}{9} \ (a) \ \frac{2}{9}, \frac{5}{9}, \frac{3}{4} \ (d) \ \frac{3}{9}, \frac{1}{9}, \frac{3}{12} \ (d) \ \frac{5}{12}, \frac{1}{12} \ (d) \ \frac{5}{12}, \frac{1}{9}, \frac{1}{9}$ $(a) \ \frac{4}{7}, \frac{3}{6}, \frac{1}{4} \ (b) \ \frac{2}{5}, \frac{8}{12}, \frac{8}{10} \ (a) \ \frac{8}{6}, \frac{8}{6}, \frac{7}{10} \ (b) \ \frac{8}{5}, \frac{8}{4}, \frac{8}{10} \ (a) \ \frac{8}{4}, \frac{11}{12}, \frac{7}{6}, \frac{8}{6}$ with self-evaluation section seen on slide 11 (a) $\frac{1}{3}$ and $\frac{3}{8}$ (b) $\frac{1}{2}$ and $\frac{5}{7}$ (c) $\frac{3}{4}$ and $\frac{5}{8}$ (d) $\frac{5}{8}$ and $\frac{5}{7}$ (e) $\frac{1}{2}$ and $\frac{5}{8}$ Page 5 Student copy of the extension task seen on slide 12 Use the clues to put the fractions in the correct place that of $\frac{2}{3}$ is a number greater than $\frac{1}{2}$ but less than $\frac{2}{3}$. Might of the largest is a number greater than $\frac{1}{2}$ but DEF Insist than \$\frac{1}{2}\$ or number less than \$\frac{1}{2}\$ but greater than \$\frac{1}{2}\$ bu sion. $\frac{1}{2}$ $\frac{1}{3}$ $\frac{2}{3}$ $\frac{1}{4}$ $\frac{3}{4}$ $\frac{1}{5}$ $\frac{2}{5}$ $\frac{3}{5}$ $\frac{4}{5}$ $\frac{3}{2}$ is under $\frac{2}{3}$. Page 6 & 7 N 4.3 Ordering Fr Student copy of the homework task seen on slide 14 The same homework task appears on 2 separate pages to allow 13 4 . 2 15 · 5 · 15 for more choice when printing (e.g. 2 pages to a sheet) $(a)\frac{11}{12},\frac{2}{8},\frac{8}{4},\frac{5}{6} \quad (b)\frac{7}{12},\frac{2}{8},\frac{5}{8},\frac{9}{4}$ Page 8 $\begin{aligned} & \operatorname{Region(2,0,1)}_{2}(4,6) \leq 1.00 < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < (0) < ($ This final page contains the solutions to pages 2-7 of the worksheet. In the lesson these solutions appear on the slides This badding are professional 1-(1) = 0.0 (-0. immediately following each task (slides 7, 9, 11, 13, 15)