# Fractions, Decimals & Percentages: Hard Practice Paper 4 Answers

| Q# | Answer | Explanation |
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| 1 | B | After a 12% increase the price is 112% of the original. So 112% = £280, which means 1% = £280 ÷ 112 = £2.50. The original price (100%) is £2.50 × 100 = £250. |
| 2 | D | The lowest common denominator of 12 and 8 is 24. 7/12 = 14/24 and 5/8 = 15/24, so the total is 29/24 = 1 5/24. |
| 3 | C | Red: 1/4 of 60 = 15. Blue: 40% of 60 = 24. Together that is 39, so the green counters number 60 − 39 = 21. |
| 4 | C | Change to improper fractions: 2 2/5 = 12/5 and 1 1/5 = 6/5. Then 12/5 ÷ 6/5 = 12/5 × 5/6 = 2. |
| 5 | D | 2/3 ≈ 0.6667. The values are 7/11 ≈ 0.636, 0.65, 0.66, 0.667 and 0.68. The difference for 0.667 is only about 0.0003, which is the smallest. |
| 6 | C | Start with 100 people. A 10% increase gives 110. A 20% increase on 110 adds 22, giving 132. That is an overall increase of 32%. |
| 7 | C | She has 3/8 left to read. 1/8 of 96 is 12, so 3/8 is 12 × 3 = 36 pages. |
| 8 | D | Multiply both numbers by 100 to give 72 ÷ 9 = 8. Check: 8 × 0.09 = 0.72. |
| 9 | C | If 45% is 27, then 5% is 3 and 100% is 60. Then 80% of 60 is 3 × 16 = 48. |
| 10 | A | 1/16 = 0.0625, so 5/16 = 5 × 0.0625 = 0.3125. |
| 11 | B | Write both as sixths: 1/6 and 1/2 = 3/6. Halfway between 1 sixth and 3 sixths is 2/6, which simplifies to 1/3. |
| 12 | C | The price with VAT is 120% of the price before VAT. So 120% = £54, which means 20% = £54 ÷ 6 = £9. The price before VAT (100%) is £9 × 5 = £45. |
| 13 | C | 1/4 of 480 is 120. Then 1/3 of 120 is 40. Then 1/2 of 40 is 20. |

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| 14 | D | The profit is £6. As a fraction of the cost price that is 6/24 = 1/4, and 1/4 = 25%. |
| 15 | E | As decimals: 3/5 = 0.6, 0.605, 61% = 0.61, 0.612 and 5/8 = 0.625. The largest is 0.625, which is 5/8. |

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