

Direct and Inverse Proportion

November 2023 Paper 1

Question	Answer	Mark	Mark scheme	Additional guidance
10	Yes and 750	P1 P1 C1	<p>for beginning to work with proportion eg $60 \div 20 (= 3)$ or $900 - 250 (= 650)$ or $250 \div 20 (= 12.5)$ oe) or $900 \div 60 (= 15)$</p> <p>for a complete process to see if there is enough peanut butter eg “3” $\times 250 (= 750)$ or $900 \div “3” (= 300)$ or “650” $- 250 - 250 (= 150)$ oe or “12.5” $\times 60 (= 750)$</p> <p>or for a complete process to work out how many cookies he can make eg $900 \div “12.5” (= 72)$</p> <p>or for process to work out how much peanut butter is needed for one cookie and how much peanut butter he can use per cookie eg $250 \div 20 (= 12.5)$ oe) and $900 \div 60 (= 15)$</p> <p>Yes and accurate figure to compare eg 750 (g needed) or 150 (g over) or 300 (g per batch available)</p> <p>or 72 (cookies can be made)</p> <p>or 12.5 (g peanut butter per cookie needed) and 15 (g peanut butter per cookie available)</p>	<p>Sugar = 600 (g) or Small eggs = 6 (eggs) implies P1</p> <p>Sight of 750 gains P2</p>

June 2023 Paper 1

Question	Answer	Mark	Mark scheme	Additional guidance
16	750	M1 A1	for $250 \times (60 \div 20)$ oe or $150 \times (60 \div 20)$ oe or $100 \times (60 \div 20)$ oe cao	

November 2022 Paper 2

Question	Answer	Mark	Mark scheme	Additional guidance
16	2	P1 P1 A1	for a calculation from within the list $4 \times 12 \div 4 \div 6$ eg $4 \times 12 (= 48)$ or $12 \div 4 (= 3)$ or $6 \div 4 (=1.5)$ or $4 \div 6 (= 0.66..)$ for a complete process, eg (“48” $\div 6$) $\div 4$ or for “0.6̇” $\times 12 \div 4$ cao	Accept $12 \div 6$ as a full process

June 2024 Paper 3

Question	Answer	Mark	Mark scheme	Additional guidance
17	180, 300, 75	<p>M1</p> <p>M1</p> <p>A1</p>	<p>for complete method to find amount needed for 30 biscuits for one ingredient, eg $120 \div 20 \times 30 (= 180)$ oe eg $120 + 120 \div 2 (= 180)$ or for method to find a scale factor, eg $30 \div 20 (= 1.5)$ oe or for method to find amount needed for 10 biscuits for at least 2 ingredients eg $120 \div 2 (= 60)$ or $200 \div 2 (= 100)$ or $50 \div 2 (= 25)$ or for method to find amount needed for 1 biscuit for at least 2 ingredients eg $120 \div 20 (= 6)$ or $200 \div 20 (= 10)$ or $50 \div 20 (= 2.5)$</p> <p>for complete method to find amount needed for 30 biscuits for at least 2 ingredients, eg at least 2 of $120 \div 20 \times 30 (= 180)$ or $200 \div 20 \times 30 (= 300)$ or $50 \div 20 \times 30 (= 75)$ oe or eg at least 2 of $120 \times "1.5" (= 180)$ or $200 \times "1.5" (= 300)$ or $50 \times "1.5" (= 75)$ or eg at least 2 of $120 + "60" (= 180)$ or $200 + "100" (= 300)$ or $50 + "25" (= 75)$ or eg at least 2 of $30 \times "6" (= 180)$ or $30 \times "10" (= 300)$ or $30 \times "2.5" (= 75)$</p> <p>for all quantities correct</p>	

June 2022 Paper 1

Question	Answer	Mark	Mark scheme	Additional guidance
18	100	M1 A1	M1 for a correct first step, eg $25 \div 10 (= 2.5)$ or $40 \div 10 (= 4)$ or 20 (scones) $= 40 \times 2 (= 80g)$ or 5 (scones) $= 40 \div 2 (= 20g)$ cao	Multiplier may be seen as evidence of this mark

November 2022 Paper 3

Question	Answer	Mark	Mark scheme	Additional guidance
20	100g butter 25g sugar 1 egg	P1 P1 P1 C1	for process to find the amount needed of one ingredient for 25 scones for process to find the amount needed for at least three ingredients for 25 scones or for process to find the correct amount more for at least two of butter, sugar, eggs for complete process to find amount more for each of butter, sugar, eggs for correct amounts more shown for butter, sugar, eggs	amount needed: 200g butter 875 flour 75 sugar 5 eggs Flour can be excluded, but no incorrect information about flour should be given.

June 2023 Paper 3

Question	Answer	Mark	Mark scheme	Additional guidance
23	17.5	P1 A1	for a first step, eg $5 \times 14 (= 70)$ or $14 \div 4 (= 3.5)$ or $5 \div 4 (= 1.25)$ or $4 \div 5 (= 0.8)$ oe	Could be done algebraically. 11.2 as answer scores no marks.

November 2023 Paper 3

Question	Answer	Mark	Mark scheme	Additional guidance
25	20	M1 A1	for $30 \times 4 \div 6$ oe cao	