# PROGRESSIVE OVERLOAD    RATIO AND PROPORTION

ACCESS MATHS

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|---|---|---|---|---|---|---|---|---|---|
| **SIMPLIFY** | Simplify: 4:10 | Simplify: 14:35 | Simplify: 20:16 | Simplify: 3:27:9 | Simplify: 26:39:130 | Simplify: 18:27:54 | Simplify: 100:1200 | Simplify: 1050:800 | Simplify: 125:1000 |
| **FRACTIONS** | Red to Blue are in the ratio 1:2 What fraction are blue? | Vans to Cars are in the ratio 2:3 What fraction are vans? | Red to Blue are in the ratio 4:5 What fraction are red? | Vans to Cars are in the ratio 1:8 What fraction are cars? | Red to Blue to Green are in the ratio 4:5:3 What fraction are blue? | Men, Women and Children are in the ratio 4:4:1 What fraction are children? | Pens are black or blue in the ratio 4:7 Probability of a black pen? | Vans to Cars are in the ratio 3:7 What percentage are vans? | Red to Blue are in the ratio 2:3 What percentage are red? |
| **DIVIDE** | Divide: £20 in the ratio 1:3 | Divide: £50 in the ratio 2:3 | Divide: £88 in the ratio 8:3 | Divide: £100 in the ratio 9:11 | Divide: £45 in the ratio 2:3:4 | Divide: £140 in the ratio 7:3 | Divide: £120 in the ratio 1:3:2 | Divide: £280 in the ratio 13:7 | Divide: £5.60 in the ratio 5:3 |
| **SHARE** | Jay and Beth share some money in the ratio 2:3 Jay gets £10, Beth gets? | Amy and Bob share some money in the ratio 5:3 Amy gets £20, Beth gets? | Jay and Beth share some money in the ratio 4:7 Beth gets £49, Beth gets? | Amy and Bob share some money in the ratio 6:11 Amy gets £48, Beth gets? | Jay and Beth share some money in the ratio 5:9. Beth gets £45, how much did they share? | Amy, Ben and Dan share some money in the ratio 2:4:3. Ben gets £48, how much did Dan receive? | Amy, Ben and Dan share some money in the ratio 5:9:3. Dan gets £27, how much did they share? | Houses, flats and bungalows are in the ratio 7:3:10 There are 140 houses, how many bungalows are there? | Houses, flats and bungalows are in the ratio 3:8:11 There are 216 flats, how many houses are there? |
| **SHARE** | Adam and Millie share some money in the ratio 2:3. Millie gets £8 more than Adam. Adam gets? | Adam and Millie share some money in the ratio 6:7. Millie gets £9 more than Adam. Adam gets? | Pippa and Tom share some money in the ratio 5:3. Pippa gets £14 more than Tom. Tom gets? | Pippa and Tom share some money in the ratio 7:4. Tom gets £18 less than Pippa. Tom gets? | Beth and Joe share some sweets in the ratio 3:7. Joe gets 36 more than Beth. How many do they share? | Beth and Joe share some sweets in the ratio 1:7. Beth gets 54 less than Joe. How many do they share? | Houses, flats and bungalows are in the ratio 7:3:10 There are 20 more houses than flats, bungalows? | Houses, flats and bungalows are in the ratio 8:3:1 There are 90 more houses than flats, bungalows? | Houses, flats and bungalows are in the ratio 4:8:5 There are 120 more flats than houses, bungalows? |
| **WRITE** | A:B is in the ratio 1:2 B:C is in the ratio 4:5 Write the ratio A:B:C | A:B is in the ratio 5:3 B:C is in the ratio 9:2 Write the ratio A:B:C | A:B is in the ratio 2:3 B:C is in the ratio 5:1 Write the ratio A:B:C | A:B is in the ratio 4:7 B:C is in the ratio 3:2 Write the ratio A:B:C | A:B is in the ratio 6:7 B:C is in the ratio 8:3 Write the ratio A:B:C | A:B is in the ratio 2:5 C:B is in the ratio 7:3 Write the ratio A:B:C | A:B is in the ratio 10:5 C:B is in the ratio 12:9 Write the ratio A:B:C | X:Y in the ratio 10:12 Y:Z is in the ratio 8:9 Write the ratio X:Y:Z | X:Y in the ratio 7:14 Y:Z is in the ratio 8:9 Write the ratio Z:X:Y |
| **EXCHANGE** | £1 : $1.36 Exchange £20 into dollars | £1 : $1.36 Exchange $68 into pounds | £1 : €1.17 Exchange £280 into euros | £1 : €1.17 Exchange €500 into pounds | £1 : ¥146 Exchange £280 into Yen | £1 : ¥146 Exchange ¥5600 into pounds | £1 : $1.36 A coat for £80 in the UK or a coat for $96 in the US? | $1 : £0.76 A coat for £68 in the UK or a coat for $79 in the US? | Which exchange rate is better? £1 : $1.36 or $1 : £0.76 |
| **VALUE** | Which is better value? 10kg for £40 1kg for £4.10 | Which is better value? 20kg for £60 3kg for £9.30 | Which is better value? 5 litres for £4.50 3 litres for £2.67 | Which is better value? 2 litres for £2.50 500ml for 85p | Which is better value? 5 packs for £12.50 3 packs for £7.20 | Which is better value? 3 packs for £6.80 7 packs for £14.50 | Which is better value? 300g for £2.60 500g for £4.90 | Which is better value? 2kg for £16 300g for £2.80 | Which is better value? 2 litres for £23.50 150ml for £1.99 |
| **PROPORTION** | 5 apples cost 80p How much does 1 apple cost? | 8 apples cost 96p How much do 3 apples cost? | 6 bananas cost 72p How much do 9 bananas cost? | 4 pencils cost 1.20p How much do 13 pencils cost? | A recipe uses 200g of flour for 5 pancakes. How much flour for 8 pancakes? | A recipe uses 150ml of milk for 3 pancakes. How many ml of milk needed for 7 pancakes? | A recipes uses 400g of potato for 8 people. How many are needed for 20 people? | A recipes uses 350g of sugar for 7 people. How many grams of sugar is needed for 4 people? | A recipe needs 240g of flour for 8 people. James has 140g of sugar, does he have enough for 5? |
| **INVERSE** | 2 workers take 8 hours to complete a job. How many hours would 1 worker take? | 3 workers take 6 hours to complete a job. How many hours would 1 worker take? | 4 taps take 8 hours to fill a swimming pool. How many hours would 2 taps take? | 6 workers take 3 hours to complete a job. How many hours would 3 workers take? | 6 workers take 4 hours to complete a job. How many hours would 12 workers take? | 5 workers take 8 hours to complete a job. How many hours would 2 workers take? | 5 taps take 6 hours fill a swimming pool. How many hours would 6 taps take? | 5 workers take 6 hours to complete a job. How many hours would 3 workers take? | 3 taps take 10 hours to fill a swimming pool. How many hours would 5 taps take? |