

## Functional Skills Maths Onscreen Mini Test | Level 2

### Inverse Proportion | Mark Scheme

#### Non-calculator

Q1

Question	Process	Mark	Mark Grid	Evidence
	Begins process to work with inverse proportion	1 or	A	$7 \times 8 (=56)$ <b>OR</b> $8 \div 3 (=2.6\ldots)$ <b>OR</b> $14 \text{ (bricklayers)} = 4 \text{ (days)}$
	Full process to work with inverse proportion	2 or	AB	$'56' \div 3 (=18.6\ldots)$ <b>oe OR</b> $'2.6\ldots' \times 7 (=18.6\ldots)$ <b>OR</b> $4 \div 3 \times 14 (=18.6\ldots)$ <b>or</b> $14 \div (14 \div 3) (=18.6\ldots)$ NB accept 18 r 2 <b>oe</b>
	Accurate figure rounded to nearest person	3	ABC	19
<b>Total marks for question</b>		<b>3</b>		

Q2

Question	Process	Mark	Mark Grid	Evidence
	Begins process to use inverse proportion	1 or	A	e.g. $12 \times 2 (=24)$ <b>OR</b> $36000 \div 12 \div 2 (=1500)$ <b>or</b> $36000 \div 9 \div 3 (=1333.3\ldots)$ <b>OR</b> $36000 \div 2 \times 3 (=54000)$ <b>OR</b> $3 \div 2 (=1.5)$
	Full process to use inverse proportion	2 or	AB	e.g. $'24' \div 3 (=8)$ <b>OR</b> $36000 \div (3 \times '1500') (=8)$ <b>OR</b> $36000 \div 12 \div 2 (=1500)$ <b>and</b> $36000 \div 9 \div 3 (=1333.3\ldots)$ <b>OR</b> $'54000' \div 12 \times 9 (=40500)$ <b>OR</b> $9 \times (3 \times '1500') (=40500)$ <b>OR</b> $9 \times '1.5' (=13.5)$ <b>OR</b> $12 \div '1.5' (=8)$
	Valid decision with accurate figures	3	ABC	e.g. No <b>AND</b> 8 <b>OR</b> No <b>AND</b> 1500 <b>and</b> 1333(3...) <b>OR</b> No <b>AND</b> 40500 <b>OR</b> No <b>AND</b> 13.5
<b>Total marks for question</b>		<b>3</b>		

Q3

Question	Process	Mark	Mark Grid	Evidence
	Begins to work with inverse proportion	1 or	A	e.g. $8 \times 60 (=480)$ <b>OR</b> $8 \div 10 (=0.8)$
	Full process to find total number of minutes	2 or	AB	e.g. $'480' \div 10 (=48)$ <b>OR</b> $'0.8' \times 60 (=48)$
	Accurate figure	3	ABC	48
<b>Total marks for question</b>		<b>3</b>		

## Calculator

Q4

Question	Process	Mark	Mark Grid	Evidence
	Begins to work with inverse proportion	1 or	A	$3.5 \times 48 (=168)$ <b>OR</b> $60 \times 3 (=180)$
	Full process to find figures to compare	2 or	AB	$'168' \div 3 (=56)$ <b>OR</b> $'168' \div 60 (=2.8)$ <b>OR</b> $3.5 \times 48 (=168)$ <b>and</b> $60 \times 3 (=180)$
	Valid decision with accurate figure	3	ABC	Yes <b>AND</b> 56 (mph) <b>OR</b> Yes <b>AND</b> 2.8 (hrs) <b>OR</b> Yes <b>AND</b> 168 (miles) <b>and</b> 180 (miles)
	Valid check using reverse calculation	1	D	e.g. $56 \times 3 = 168$ <b>OR</b> $168 \div 48 = 3.5$
<b>Total marks for question</b>		<b>4</b>		

Q5

Question	Process	Mark	Mark Grid	Evidence
	Begins to use inverse proportion	1 or	A	e.g. $24 \times 4 (=96)$ <b>OR</b> $3 \div 4 (=0.75)$ <b>OR</b> $4 \div 3 (=1.33...)$ <b>OR</b> $(600 \div 4) \div 24 (=6.25)$
	Full process to find number of workers	2 or	AB	e.g. $'96' \div 3 (=32)$ <b>OR</b> $24 \div '0.75' (=32)$ <b>OR</b> $24 \times '1.33...' (=32)$ <b>OR</b> $(600 \div 3) \div '6.25' (=32)$
	Accurate figure	3	ABC	32
<b>Total marks for question</b>		<b>3</b>		

Q6

Question	Process	Mark	Mark Grid	Evidence
	Begins process to work with inverse proportion	1 or	A	e.g. $75 \times 15 (= 1125)$ <b>OR</b> $15 \div 9 (= 1.66\ldots)$
	Full process to work with inverse proportion	2 or	AB	e.g. ' $1125$ ' $\div 9 (= 125)$ <b>OR</b> ' $1.66\ldots$ ' $\times 75 (= 125)$
	Accurate figure	3	ABC	125(.00)
<b>Total marks for question</b>		<b>3</b>		