Name _____   Date _____

Recognizing Proportional Relationships - Independent Practice Worksheet

Solve all the problems.

1) Drew is an artist. He paints portraits. The table below shows the number of portraits painted in hours. Do the numbers in the table represent a proportional relationship?

Number of portraits	Time (In Hours)
1	5
2	10
3	15
4	20

2) This table shows the amount earned by Harry for selling cups of ice cream. Do the numbers in the table represent a proportional relationship?

Cups sold (km)	Earnings ($)
3	12
5	20
7	28
9	36

3) Fred wrote notes during an examination. The table below shows number of pages written in relation to the time it took to make the notes (in hours). Does the table represent a proportional relationship?

Notes (pages)	Time (In Hours)
8	16
9	18
10	20
11	23

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4) Alice went to market and bought comics. The table below shows the price for different numbers of comics. Do the numbers in the table represent a proportional relationship?

Number of Comics	Price (Dollars)
2	6
4	12
6	16
8	24

5) A ferry has to transport bikes on an island. The table below shows the number of bikes transported and the number of trips made by ferry. Do the numbers in the table represent a proportional relationship?

Number of bikes	Number of trips
10	5
12	6
14	7
16	8

6) The table below gives the distance covered by a train over time. Do the numbers in the table represent a proportional relationship?

Distance (km)	Time (In Hours)
50	10
60	12
70	14
80	16

7) Daisy made an envelope from sheets of paper. The table below shows the number of envelopes made by the number of sheets. Do the numbers in the table represent a proportional relationship?

Number of envelopes	Number of sheets
1	2
2	4
3	6
4	12

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8) Joe made a fruit pie. The table below displays the number of fruits he used to make the pies. State "Yes", if the table represents a proportional relationship?

Number of pie	Number of fruit
2	10
3	15
4	24
5	25

9) Betty makes omelettes. The table below shows number of omelettes made and the number of eggs used. Does table represent a proportional relationship?

Number omelette	Number of eggs
5	10
6	12
7	14
8	24

10) Kelly goes on a morning walk. The table below shows the number of meters ran by Kelly over time. Do the numbers in the table represent a proportional relationship?

Distance (m)	Time (In minutes)
3	12
4	16
5	20
6	24

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Graphs of Proportional Relationships - Independent Practice Worksheet

Complete all the problems.

1. Olivia sold water bottles over four days. Create a graph to determine if the quantities of bottles and number of days are proportional. If the quantities are proportional, what is the constant of proportionality?

Days	1	2	3	4
Number of Bottle	4	8	12	16

2. Aiden brought some pencils and boxes. Create a graph to determine if the quantities of boxes and pencils are proportional. If the quantities are proportional, what is the constant of proportionality?

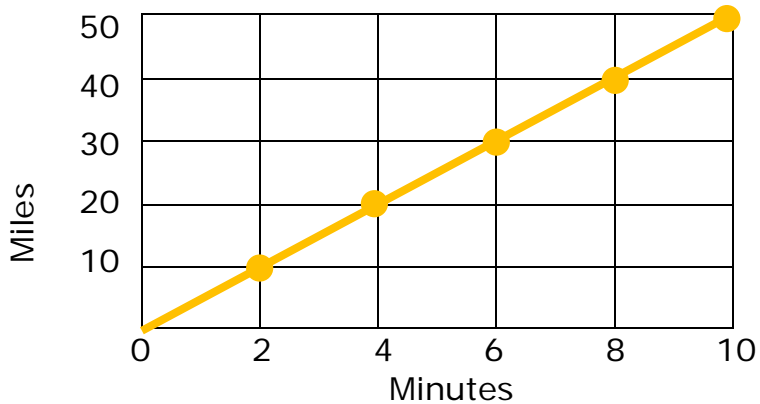| Number of Boxes	2	4	6	8
Number of Pencil	4	8	12	16

3. The graph below represents the number of balls thrown over time. What is the constant of proportionality?
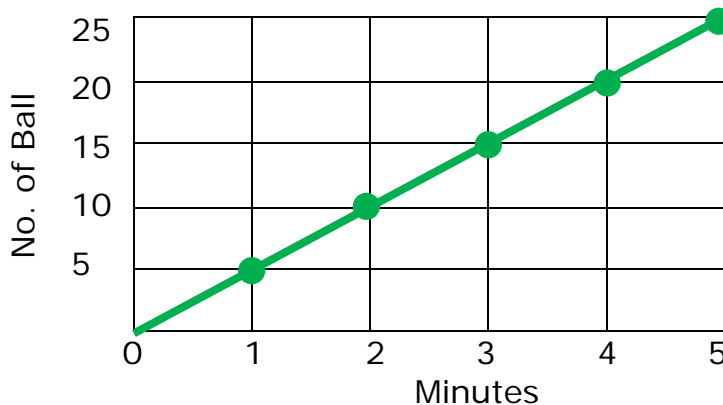
4. The graph below represents the number of miles Michael ran over time. What is the constant of proportionality?

5. Jayden sold mobile phones over four days. Create a graph to determine if there is a proportional relationship between the data. If the quantities are proportional, what is the constant of proportionality?

Days	1	2	3	4
Number of Cell Phone	5	10	15	20

6. William made cookies over consecutive hours. Create a graph to determine if a proportional relationship exists between time and the number of cookies made. If the quantities are proportional, what is the constant of proportionality?
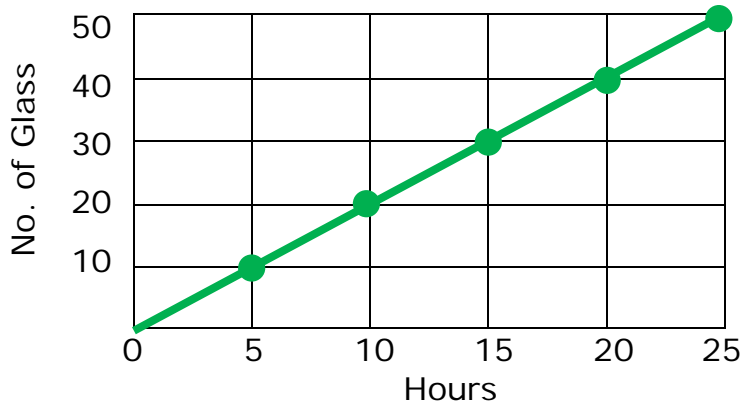
Number of Hours	1	2	3	4	5
Number of Cookies	15	30	45	60	75

7. The graph below represents the number of glasses Tom drank over time. What is the constant of proportionality?

8. Mason made omelettes. Create a graph to determine if there is a proportional relationship between the number of eggs used and the number of omelettes made. If the quantities are proportional, what is the constant of proportionality?

Number of Eggs	3	6	9	12	15
Number of omelette	6	12	18	24	30

9. Isabella made necklaces with beads. Create a graph to determine if the quantities of beads and necklace are proportional. If the quantities are proportional, what is the constant of proportionality?

Number of Necklace	2	4	6	8	10
Number of Beads	7	14	21	28	35

10. The graph below represents the number of vertical jumps Ava can do over time. What is the constant of proportionality?