Raider's Peril

Mixed Maths Challenge Cards

twinkl
ORIGINALS

★

Put the following amounts of bitcoin (BTC) in order, from smallest to largest.

197 BTC	201 BTC	124 BTC	281 BTC	179 BTC
_____	_____	_____	_____	_____

1

★

Catanna discovers $\frac{3}{4}$ box of rare gems and $\frac{1}{4}$ box of topaz gems.
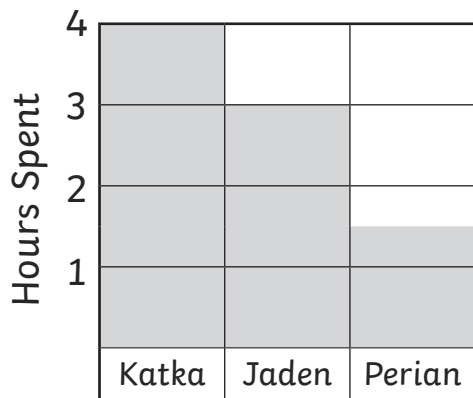
What fraction has she discovered in total?

2

★

What fraction of the shape is shown?
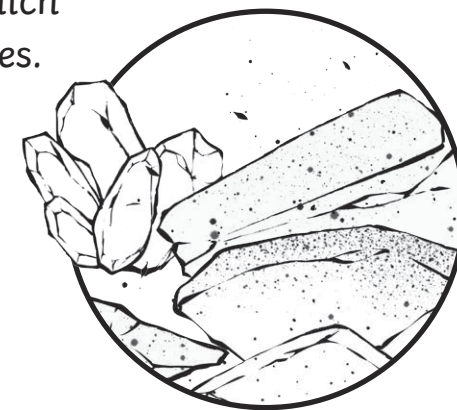
3

Hours playing Raider's Peril

a) What is the time difference between the person who raids the most and the person who raids the least?

b) Who raids for 180 minutes per night?

4

Draw a gemstone shape which has two pairs of parallel lines.

5

Katka is travelling north but she hears a noise and makes a 180-degree turn.

Which direction is she facing now?

6

Milana has a spelling test twice a week.

How many spelling tests does Milana have over a fortnight?

7

Computing class lasts for 1 hour. There are two sessions per week.

How many minutes of computing are there each week?

8

Zircon begins playing Raider's Peril at 7:30 p.m. and finishes at 10:15 p.m.

How long has he been raiding for?

9

The new Raider's Peril game costs £32.49. The previous version cost £28.50.

How much more expensive is the latest version?

RAIDER TRADEZ

Diamond Grenade 1.2

Fire Opal Axe 0.8

Emerald Bow 0.4

10

The Brittlestar guild trek 12km on Monday, 32km on Tuesday and 47km on Wednesday to reach the Gutvine stronghold.

How many kilometres do they trek altogether?

11

One fire opal spear weighs 1kg, whereas a diamond axe weighs 1237 grams.

Which is heavier and by how many grams?

12

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1. 124 BTC, 179 BTC, 197 BTC, 201 BTC, 281 BTC

2. $\frac{3}{4} + \frac{1}{4} = \frac{4}{4}$ or 1 whole box of gems

3. $\frac{2}{3}$

4. a) 2 hours 30 minutes or 2.5 hours or 150 minutes

   b) Jaden

5. A drawing of a gemstone with two pairs of parallel lines e.g. a parallelogram

6. Katka is facing south.

7. 2 × 2 = 4 spelling tests

8. 2 × 60 = 120 minutes

9. 2 hours 45 minutes

10. £32.49 – £28.50 = £3.99

11. 12 + 32 + 47 = 91km

12. 1237 – 1000 = 237

    A diamond axe is 237g heavier.

Put the following amounts of bitcoin (BTC) in order, from smallest to largest.

18 057 BTC	20 801 BTC	9204 BTC	8081 BTC	10 089 BTC
_____	_____	_____	_____	_____

1

Catanna discovers $\frac{1}{4}$ box of onyx gems and $\frac{2}{8}$ box of topaz gems. She adds them to the $\frac{3}{8}$ box of opal gems that she already has.

What fraction has she discovered in total?

2

Katka spends $\frac{1}{10}$ of each day playing Raider's Peril.

How many hours does she play for?

3

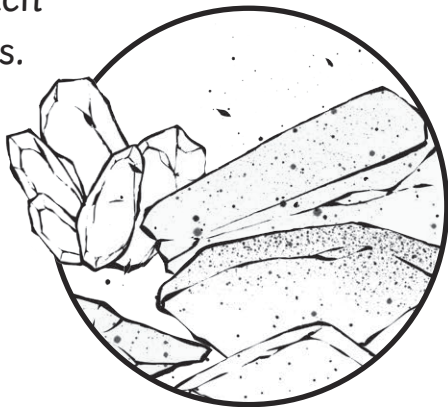This table shows what proportion of their evenings these characters spend playing Raider's Peril.

Katka	Jaden	Perian
69%	0.68	33/50

a) Who raids for the most amount of time?

b) Who raids for the least amount of time?

4

Draw a gemstone shape which has two pairs of parallel lines.

5

Katka is travelling north-east but she hears a noise and makes a 180-degree turn clockwise.

Which direction is she facing now?

6

Milana practises her spelling tests for a quarter of an hour each week.

How long does she practise for over eight weeks?

7

Each computing class lasts for an hour and a quarter. There are two lessons each week.

How many minutes is this per week?

8

Zircon begins playing Raider's Peril at 15:47 and finishes at 21:19.

How long has he been raiding for?

9

The new Raider's Peril game costs £32. A sale offers $\frac{1}{4}$ off the price.

How much is the game?

RAIDER TRADEZ

Diamond Grenade 1.2

Fire Opal Axe 0.8

Emerald Bow 0.4

10

The Brittlestar guild trek for one hour and two minutes on Monday and 72 minutes on Tuesday, to reach the Gutvine stronghold.

On which day do they travel for the longest time?

11

One fire opal spear weigh 2.6kg, whereas a diamond axe weighs 2700 grams.

Which weighs the most and by how many grams?

12

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1. 8081 BTC, 9204 BTC, 10 089 BTC, 18 057 BTC, 20 801 BTC

2. $\frac{1}{4}$ = $\frac{2}{8}$

   $\frac{2}{8}$ + $\frac{2}{8}$ + $\frac{3}{8}$ = $\frac{7}{8}$

3. $\frac{1}{10}$ of 24 hours = 2.4 hours = 144 minutes

4.

Katka	Jaden	Perian
69%	68%	66%

   a) Katka raids the most.
   b) Perian raids for the least amount of time.

5. A drawing of a gemstone with two pairs of parallel lines e.g. a parallelogram

6. Katka is facing south-west.

7. $\frac{1}{4}$ × 8 = 2 hours

8. 1 hour 15 minutes = 75 minutes
   75 × 2 = 150 minutes

9. 5 hours 32 minutes

10. £32 ÷ 4 = £8
    £32 − £8 = £24.00

11. Tuesday (62 minutes < 72 minutes)

12. 12 + 32 + 47 = 91km
    1.6kg = 2600g
    2700 − 2600 = 100g
    Diamond axe is 100g heavier.

Put the following amounts of bitcoin (BTC) in order, from smallest to largest.

108 057 BTC	100 801 BTC	109 204 BTC	108 081 BTC	100 789 BTC
_____	_____	_____	_____	_____

1

Catanna discovers $3\frac{1}{4}$ boxes of opal gems and $5\frac{3}{8}$ boxes of topaz gems. She adds them to the $9\frac{4}{16}$ boxes of pink gems that she already has.

How many boxes of gems has Catanna got in total? Write your answer as a mixed number.

2

Katka spends approximately 15% of each 24-hour day playing Raider's Peril.

How long does she play for?

3

This table shows what proportion of their evenings these characters spend playing Raider's Peril.

Katka	Jaden	Perian
69%	0.68	33/50

a) What fraction of the evening does Jaden play for? Write your answer in its simplest form.

b) Who raids for 66% of an evening?

4

The length of one side of the Gutvine stronghold is 18.7m, and its width is 24.9m.

What is the total perimeter of the stronghold?

5

★ ★ ★

Katka is travelling north-east but she hears a noise and turns clockwise to face west.

How many degrees has she turned?

6

★ ★ ★

Milana practises her spelling tests three times a week, for 17 minutes each time.

How many minutes does she practise for over eight weeks?

7

★ ★ ★

Each computing class lasts for an hour and three quarters. There are two lessons each week.

How many seconds is this?

8

★ ★ ★

Zircon begins playing Raider's Peril at 15:47 and finishes 277 minutes later.

What time does Zircon finish raiding?

9

The new Raider's Peril game costs £32. There is a sale offering 15% off the price.

How much is the game?

10

The Brittlestar guild trek for 11 835 metres.

Round this number to the nearest:

a) 100;

b) 1000;

c) 10 000.

11

The Brittlestars build a new stronghold which is 23m in length and 15m in width.

What is the area of this stronghold?

12

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1. 100 789 BTC, 100 801 BTC, 108 057 BTC, 108 081 BTC, 109 204 BTC

2. $3\frac{1}{4} + 5\frac{3}{8} + 9\frac{4}{16} = 3\frac{4}{16} + 5\frac{6}{16} + 9\frac{4}{16}$

    $= 3 + 5 + 9 + \frac{14}{16} = 17\frac{14}{16}$

    $= 17\frac{7}{8}$ boxes of gems

3. $0.15 × 24 = 3.6$

    3.6 hours = 3 hours 36 minutes

4. a) $\frac{68}{100} = \frac{34}{50} = \frac{17}{25}$

    b) Perian $(\frac{33}{50} = \frac{66}{100})$

5. $(18.7 × 2) + (24.9 × 2)$

    $= 37.4 + 49.8 = 87.2m$

6. 225 degrees

7. $3 × 8 = 24$

    $24 × 17 = 200 + 140 + 40$
    $+ 28 = 408$ minutes

8. $1\frac{3}{4} + 1\frac{3}{4} + 3\frac{1}{2}$ hours

    = 210 minutes = 12 600 seconds

9. 277 minutes = 4 hours 37 minutes

    15:47 + 4 hours 37 minutes = 20:24

10. 15% of £32 = £4.80

    £32 – £4.80 = £27.20

11. a) 11 800   b) 12 000   c) 10 000

12. 23m × 15m = 200 + 100

    $+ 30 + 15 = 345m^2$