**Lampiran 1**

**TES**

**KEMAMPUAN PEMAHAMAN KONSEP GEOMETRI**

Mata Pelajaran : Matematika

Materi : Geometri Ruang

Kelas/Semester : VIII/2

Waktu : 30 Menit

**Nama** :………………

**Kelas** :………………

**Petunjuk Kerja :**

1. Pahami pertanyaan-pertanyaan yang tersedia.
2. Jawablah pertanyaan-pertanyaan di bawah ini dengan baik dan benar.
3. Waktu yang disediakan dalam mengerjakan adalah 30 menit.

**Soal uraian**

1. Indikator : menyajikan konsep dengan berbagai bentuk representasi

matematis

* Perhatikan gambar dibawah ini, Tuliskan nama bangun ruang yang sesuai dari gambar dan buatlah gambar bangun ruang tersebut.

1. Lupis Medan b) Ombus-ombus

1. Itak gur-gur d) Lapet

1. Putu bambu f) Bika ambon

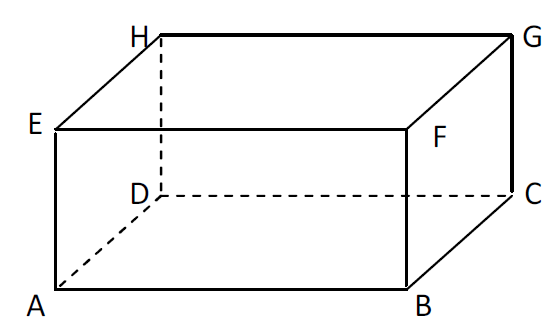
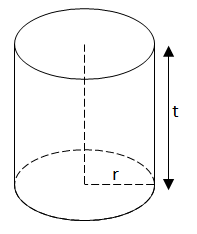
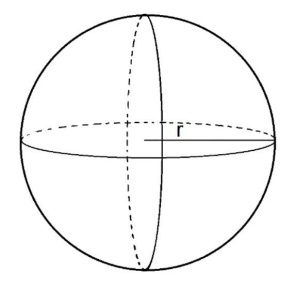
1. Indikator : Menyatakan kembali konsep matematika dengan bahasa sendiri

* Simpulkan pengertian bangun ruang dengan bahasamu sendiri yang sesuai dengan jawaban no.1 pada gambar diatas.

1. Indikator : Mengklasifikasi obyek-obyek matematika

* Perhatikan gambar dibawah ini, sebutkan sifat-sifat bangun ruang yang terdapat pada gambar.

1. b. c.



1. Indikator : Mengaplikasikan konsep atau algoritma pada pemecahan

masalah

* Hitunglah luas permukaan dari gambar berikut jika diketahui sisi alas 6 cm, tinggi sisi alas 3 cm dan tinggi 5 cm.



* Hitunglah luas permukaan dari gambar berikut jika diketahui diameter 4 cm



* Hitunglah luas permukaan dari gambar berikut jika diketahui panjang 20 cm, lebar 15 cm dan tinggi 6 cm.



**Lampiran 2**

**DAFTAR NAMA PESERTA DIDIK**

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Peserta Didik** | **Kode** | **Kelas** |
|  | Adinda Pramudia Lubis | S-1 | 8-C |
|  | Aditya Tampubolon | S-2 | 8-C |
|  | Alda Salsabilla | S-3 | 8-C |
|  | Aulia Adya Nur | S-4 | 8-C |
|  | Azzahra Rahmadhany Ginting | S-5 | 8-C |
|  | Bayu Kurniawan | S-6 | 8-C |
|  | Candy Suryani Syahputri | S-7 | 8-C |
|  | Chelsea Olivia Putri | S-8 | 8-C |
|  | Cinta Claudia Putri | S-9 | 8-C |
|  | Dicha Alif | S-10 | 8-C |
|  | Dimas Ramadhan | S-11 | 8-C |
|  | Firmansyah Nasution | S-12 | 8-C |
|  | Fitria Rahma | S-13 | 8-C |
|  | Halimatusadiah | S-14 | 8-C |
|  | M Riski Barokah | S-15 | 8-C |
|  | Mempe Boangmanalu | S-16 | 8-C |
|  | Mhd Rasya | S-17 | 8-C |
|  | M Andra Pratama | S-18 | 8-C |
|  | Muhammad Bagus | S-19 | 8-C |
|  | Muhammad Ikhsan | S-20 | 8-C |
|  | Mukhlisna Lahuddin Ujung | S-21 | 8-C |
|  | Mutiara Anggraini | S-22 | 8-C |
|  | Nissya Nurjannah | S-23 | 8-C |
|  | Rahma Hafiza | S-24 | 8-C |
|  | Riana Widya Manik | S-25 | 8-C |

**Lampiran 3**

**HASIL TES PEMAHAMAN KONSEP GEOMTRI SISWA SKALA 0-100**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No** | **Peserta Didik** | **Kode** | **Nilai Berdasarkan Indikator** | | | |
| **1** | **2** | **3** | **4** |
|  | Adinda Pramudia Lubis | S-1 | 100 | 100 | 80 | 80 |
|  | Aditya Tampubolon | S-2 | 100 | 80 | 80 | 100 |
|  | Alda Salsabilla | S-3 | 100 | 80 | 100 | 100 |
|  | Aulia Adya Nur | S-4 | 100 | 80 | 100 | 100 |
|  | Azzahra Rahmadhany Ginting | S-5 | 80 | 100 | 100 | 80 |
|  | Bayu Kurniawan | S-6 | 100 | 100 | 80 | 80 |
|  | Candy Suryani Syahputri | S-7 | 100 | 80 | 80 | 80 |
|  | Chelsea Olivia Putri | S-8 | 80 | 80 | 80 | 100 |
|  | Cinta Claudia Putri | S-9 | 100 | 100 | 100 | 100 |
|  | Dicha Alif | S-10 | 100 | 80 | 100 | 80 |
|  | Dimas Ramadhan | S-11 | 80 | 100 | 100 | 80 |
|  | Firmansyah Nasution | S-12 | 100 | 100 | 80 | 100 |
|  | Fitria Rahma | S-13 | 100 | 100 | 80 | 100 |
|  | Halimatusadiah | S-14 | 100 | 100 | 100 | 100 |
|  | M Riski Barokah | S-15 | 100 | 80 | 80 | 80 |
|  | Mempe Boangmanalu | S-16 | 80 | 100 | 100 | 80 |
|  | Mhd Rasya | S-17 | 100 | 100 | 80 | 100 |
|  | M Andra Pratama | S-18 | 80 | 80 | 100 | 100 |
|  | Muhammad Bagus | S-19 | 100 | 80 | 100 | 100 |
|  | Muhammad Ikhsan | S-20 | 100 | 100 | 80 | 80 |
|  | Mukhlisna Lahuddin Ujung | S-21 | 100 | 100 | 100 | 100 |
|  | Mutiara Anggraini | S-22 | 100 | 100 | 100 | 80 |
|  | Nissya Nurjannah | S-23 | 100 | 100 | 80 | 80 |
|  | Rahma Hafiza | S-24 | 100 | 100 | 80 | 100 |
|  | Riana Widya Manik | S-25 | 100 | 100 | 100 | 80 |

**Lampiran 4**

**HASIL TES PEMAHAMAN KONSEP GEOMTRI SISWA**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No** | **Siswa** | **Skor Pertanyaan / Skor Maksimal** | | | | **Total Skor** |
| **1** | **2** | **3** | **4** |
|  | S-1 | 4 | 4 | 3 | 3 | 14 |
|  | S-2 | 4 | 3 | 3 | 4 | 14 |
|  | S-3 | 4 | 3 | 4 | 4 | 15 |
|  | S-4 | 4 | 3 | 4 | 4 | 15 |
|  | S-5 | 3 | 4 | 4 | 3 | 14 |
|  | S-6 | 4 | 4 | 3 | 3 | 14 |
|  | S-7 | 4 | 3 | 3 | 3 | 13 |
|  | S-8 | 3 | 3 | 3 | 4 | 13 |
|  | S-9 | 4 | 4 | 4 | 4 | 16 |
|  | S-10 | 4 | 3 | 4 | 3 | 14 |
|  | S-11 | 3 | 4 | 4 | 3 | 14 |
|  | S-12 | 4 | 4 | 3 | 4 | 15 |
|  | S-13 | 4 | 4 | 3 | 4 | 15 |
|  | S-14 | 4 | 4 | 4 | 4 | 16 |
|  | S-15 | 4 | 3 | 3 | 3 | 13 |
|  | S-16 | 3 | 4 | 4 | 3 | 14 |
|  | S-17 | 4 | 4 | 3 | 4 | 15 |
|  | S-18 | 3 | 3 | 4 | 4 | 14 |
|  | S-19 | 4 | 3 | 4 | 4 | 15 |
|  | S-20 | 4 | 4 | 3 | 3 | 14 |
|  | S-21 | 4 | 4 | 4 | 4 | 16 |
|  | S-22 | 4 | 4 | 4 | 3 | 15 |
|  | S-23 | 4 | 4 | 3 | 3 | 14 |
|  | S-24 | 4 | 4 | 3 | 4 | 15 |
|  | S-25 | 4 | 4 | 4 | 3 | 15 |
| JUMLAH | | 95 | 91 | 88 | 88 | 362 |

**Lampiran 5**

**HASIL PERHITUNGAN VALIDITAS SOAL TES PEMAHAMAN KONSEP GEOMETRI SISWA**

**SOAL 1**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Siswa** | **X** | **Y** | **X2** | **Y2** | **XY** |
| S-1 | 4 | 14 | 16 | 196 | 56 |
| S-2 | 4 | 14 | 16 | 196 | 56 |
| S-3 | 4 | 15 | 16 | 225 | 60 |
| S-4 | 4 | 15 | 16 | 225 | 60 |
| S-5 | 3 | 14 | 9 | 196 | 42 |
| S-6 | 4 | 14 | 16 | 196 | 56 |
| S-7 | 4 | 13 | 16 | 169 | 52 |
| S-8 | 3 | 13 | 9 | 169 | 39 |
| S-9 | 4 | 16 | 16 | 256 | 64 |
| S-10 | 4 | 14 | 16 | 196 | 56 |
| S-11 | 3 | 14 | 9 | 196 | 42 |
| S-12 | 4 | 15 | 16 | 225 | 60 |
| S-13 | 4 | 15 | 16 | 225 | 60 |
| S-14 | 4 | 16 | 16 | 256 | 64 |
| S-15 | 4 | 13 | 16 | 169 | 52 |
| S-16 | 3 | 14 | 9 | 196 | 42 |
| S-17 | 4 | 15 | 16 | 225 | 60 |
| S-18 | 3 | 14 | 9 | 196 | 42 |
| S-19 | 4 | 15 | 16 | 225 | 60 |
| S-20 | 4 | 14 | 16 | 196 | 56 |
| S-21 | 4 | 16 | 16 | 256 | 64 |
| S-22 | 4 | 15 | 16 | 225 | 60 |
| S-23 | 4 | 14 | 16 | 196 | 56 |
| S-24 | 4 | 15 | 16 | 225 | 60 |
| S-25 | 4 | 15 | 16 | 225 | 60 |
| JUMLAH | 95 | 362 | 365 | 5260 | 1379 |

Keterangan :

X = Skor siswa pada soal no 1

Y = Total skor siswa

Menghitung harga korelasi skor butir soal dengan menggunakan rumus korelasi product moment berikut

validitas butir soal no 1 adalah

Pada taraf signifikan 0,05 atau 5% dengan N=25 maka diperoleh rtabel = 0,396

karena rhitung > rtabel maka soal no 1 dikatakan valid

**Lampiran 6**

**HASIL PERHITUNGAN VALIDITAS SOAL TES PEMAHAMAN KONSEP GEOMETRI SISWA**

**SOAL 2**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Siswa** | **X** | **Y** | **X2** | **Y2** | **XY** |
| S-1 | 4 | 14 | 16 | 196 | 56 |
| S-2 | 3 | 14 | 9 | 196 | 42 |
| S-3 | 3 | 15 | 9 | 225 | 45 |
| S-4 | 3 | 15 | 9 | 225 | 45 |
| S-5 | 4 | 14 | 16 | 196 | 56 |
| S-6 | 4 | 14 | 16 | 196 | 56 |
| S-7 | 3 | 13 | 9 | 169 | 39 |
| S-8 | 3 | 13 | 9 | 169 | 39 |
| S-9 | 4 | 16 | 16 | 256 | 64 |
| S-10 | 3 | 14 | 9 | 196 | 42 |
| S-11 | 4 | 14 | 16 | 196 | 56 |
| S-12 | 4 | 15 | 16 | 225 | 60 |
| S-13 | 4 | 15 | 16 | 225 | 60 |
| S-14 | 4 | 16 | 16 | 256 | 64 |
| S-15 | 3 | 13 | 9 | 169 | 39 |
| S-16 | 4 | 14 | 16 | 196 | 56 |
| S-17 | 4 | 15 | 16 | 225 | 60 |
| S-18 | 3 | 14 | 9 | 196 | 42 |
| S-19 | 3 | 15 | 9 | 225 | 45 |
| S-20 | 4 | 14 | 16 | 196 | 56 |
| S-21 | 4 | 16 | 16 | 256 | 64 |
| S-22 | 4 | 15 | 16 | 225 | 60 |
| S-23 | 4 | 14 | 16 | 196 | 56 |
| S-24 | 4 | 15 | 16 | 225 | 60 |
| S-25 | 4 | 15 | 16 | 225 | 60 |
| JUMLAH | 91 | 362 | 337 | 5260 | 1322 |

Keterangan :

X = Skor siswa pada soal no 2

Y = Total skor siswa

Menghitung harga korelasi skor butir soal dengan menggunakan rumus korelasi *product moment* berikut

validitas butir soal no 2 adalah

Pada taraf signifikan 0,05 atau 5% dengan N=25 maka diperoleh rtabel = 0,396

karena rhitung > rtabel maka soal no 2 dikatakan valid

**Lampiran 7**

**HASIL PERHITUNGAN VALIDITAS SOAL TES PEMAHAMAN KONSEP GEOMETRI SISWA**

**SOAL 3**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Siswa** | **X** | **Y** | **X2** | **Y2** | **XY** |
| S-1 | 3 | 14 | 9 | 196 | 42 |
| S-2 | 3 | 14 | 9 | 196 | 42 |
| S-3 | 4 | 15 | 16 | 225 | 60 |
| S-4 | 4 | 15 | 16 | 225 | 60 |
| S-5 | 4 | 14 | 16 | 196 | 56 |
| S-6 | 3 | 14 | 9 | 196 | 42 |
| S-7 | 3 | 13 | 9 | 169 | 39 |
| S-8 | 3 | 13 | 9 | 169 | 39 |
| S-9 | 4 | 16 | 16 | 256 | 64 |
| S-10 | 4 | 14 | 16 | 196 | 56 |
| S-11 | 4 | 14 | 16 | 196 | 56 |
| S-12 | 3 | 15 | 9 | 225 | 45 |
| S-13 | 3 | 15 | 9 | 225 | 45 |
| S-14 | 4 | 16 | 16 | 256 | 64 |
| S-15 | 3 | 13 | 9 | 169 | 39 |
| S-16 | 4 | 14 | 16 | 196 | 56 |
| S-17 | 3 | 15 | 9 | 225 | 45 |
| S-18 | 4 | 14 | 16 | 196 | 56 |
| S-19 | 4 | 15 | 16 | 225 | 60 |
| S-20 | 3 | 14 | 9 | 196 | 42 |
| S-21 | 4 | 16 | 16 | 256 | 64 |
| S-22 | 4 | 15 | 16 | 225 | 60 |
| S-23 | 3 | 14 | 9 | 196 | 42 |
| S-24 | 3 | 15 | 9 | 225 | 45 |
| S-25 | 4 | 15 | 16 | 225 | 60 |
| JUMLAH | 88 | 362 | 316 | 5260 | 1279 |

Keterangan :

X = Skor siswa pada soal no 3

Y = Total skor siswa

Menghitung harga korelasi skor butir soal dengan menggunakan rumus korelasi *product moment* berikut

validitas butir soal no 3 adalah

pada taraf signifikan 0,05 atau 5% dengan N=25 maka diperoleh rtabel = 0,396

karena rhitung > rtabel maka soal no 3 dikatakan valid

**Lampiran 8**

**HASIL PERHITUNGAN VALIDITAS SOAL TES PEMAHAMAN KONSEP GEOMETRI SISWA**

**SOAL 4**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Siswa** | **X** | **Y** | **X2** | **Y2** | **XY** |
| S-1 | 3 | 14 | 9 | 196 | 42 |
| S-2 | 4 | 14 | 16 | 196 | 56 |
| S-3 | 4 | 15 | 16 | 225 | 60 |
| S-4 | 4 | 15 | 16 | 225 | 60 |
| S-5 | 3 | 14 | 9 | 196 | 42 |
| S-6 | 3 | 14 | 9 | 196 | 42 |
| S-7 | 3 | 13 | 9 | 169 | 39 |
| S-8 | 4 | 13 | 16 | 169 | 52 |
| S-9 | 4 | 16 | 16 | 256 | 64 |
| S-10 | 3 | 14 | 9 | 196 | 42 |
| S-11 | 3 | 14 | 9 | 196 | 42 |
| S-12 | 4 | 15 | 16 | 225 | 60 |
| S-13 | 4 | 15 | 16 | 225 | 60 |
| S-14 | 4 | 16 | 16 | 256 | 64 |
| S-15 | 3 | 13 | 9 | 169 | 39 |
| S-16 | 3 | 14 | 9 | 196 | 42 |
| S-17 | 4 | 15 | 16 | 225 | 60 |
| S-18 | 4 | 14 | 16 | 196 | 56 |
| S-19 | 4 | 15 | 16 | 225 | 60 |
| S-20 | 3 | 14 | 9 | 196 | 42 |
| S-21 | 4 | 16 | 16 | 256 | 64 |
| S-22 | 3 | 15 | 9 | 225 | 45 |
| S-23 | 3 | 14 | 9 | 196 | 42 |
| S-24 | 4 | 15 | 16 | 225 | 60 |
| S-25 | 3 | 15 | 9 | 225 | 45 |
| JUMLAH | 88 | 362 | 316 | 5260 | 1280 |

Keterangan :

X = Skor siswa pada soal no 4

Y = Total skor siswa

Menghitung harga korelasi skor butir soal dengan menggunakan rumus korelasi *product moment* berikut

validitas butir soal no 4 adalah

Pada taraf signifikan 0,05 atau 5% dengan N=25 maka diperoleh rtabel = 0,396

karena rhitung > rtabel maka soal no 4 dikatakan valid

Membuat keputusan dengan membandingkan rhitung dengan rtabel. Adapun kaidah keputusan yang digunakan ialah sebagai berikut

1. jika rhitung>rtabel berarti valid
2. jika rhitung<rtabel berarti tidak valid

Berikut rekapitulasi validitas butir soal secara keseluruhan

|  |  |  |  |
| --- | --- | --- | --- |
| **No Soal** | **rhitung** | **rtabel** | **Keterangan** |
|  | 0,398 | 0,396 | Valid |
|  | 0,421 | 0,396 | Valid |
|  | 0,446 | 0,396 | Valid |
|  | 0,540 | 0,396 | Valid |

**Lampiran 9**

**HASIL PERHITUNGAN REALIBILITAS SOAL TES KEMAMPUAN PEMAHAMAN KONSEP GEOMETRI SISWA**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **No** | **Siswa** | **Skor Pertanyaan / Skor Maksimal** | | | | **X** | **X2** |
| **1** | **2** | **3** | **4** |
|  | S-1 | 4 | 4 | 3 | 3 | 14 | 196 |
|  | S-2 | 4 | 3 | 3 | 4 | 14 | 196 |
|  | S-3 | 4 | 3 | 4 | 4 | 15 | 225 |
|  | S-4 | 4 | 3 | 4 | 4 | 15 | 225 |
|  | S-5 | 3 | 4 | 4 | 3 | 14 | 196 |
|  | S-6 | 4 | 4 | 3 | 3 | 14 | 196 |
|  | S-7 | 4 | 3 | 3 | 3 | 13 | 169 |
|  | S-8 | 3 | 3 | 3 | 4 | 13 | 169 |
|  | S-9 | 4 | 4 | 4 | 4 | 16 | 256 |
|  | S-10 | 4 | 3 | 4 | 3 | 14 | 196 |
|  | S-11 | 3 | 4 | 4 | 3 | 14 | 196 |
|  | S-12 | 4 | 4 | 3 | 4 | 15 | 225 |
|  | S-13 | 4 | 4 | 3 | 4 | 15 | 225 |
|  | S-14 | 4 | 4 | 4 | 4 | 16 | 256 |
|  | S-15 | 4 | 3 | 3 | 3 | 13 | 169 |
|  | S-16 | 3 | 4 | 4 | 3 | 14 | 196 |
|  | S-17 | 4 | 4 | 3 | 4 | 15 | 225 |
|  | S-18 | 3 | 3 | 4 | 4 | 14 | 196 |
|  | S-19 | 4 | 3 | 4 | 4 | 15 | 225 |
|  | S-20 | 4 | 4 | 3 | 3 | 14 | 196 |
|  | S-21 | 4 | 4 | 4 | 4 | 16 | 256 |
|  | S-22 | 4 | 4 | 4 | 3 | 15 | 225 |
|  | S-23 | 4 | 4 | 3 | 3 | 14 | 196 |
|  | S-24 | 4 | 4 | 3 | 4 | 15 | 225 |
|  | S-25 | 4 | 4 | 4 | 3 | 15 | 225 |
| JUMLAH | | 95 | 91 | 88 | 88 | 362 | 5260 |

**Lampiran 10**

**TABEL KUADRAT SKOR SOAL**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Siswa** | **Skor Pertanyaan / Skor Maksimal** | | | |
| **1** | **2** | **3** | **4** |
|  | S-1 | 16 | 16 | 9 | 9 |
|  | S-2 | 16 | 9 | 9 | 16 |
|  | S-3 | 16 | 9 | 16 | 16 |
|  | S-4 | 16 | 9 | 16 | 16 |
|  | S-5 | 9 | 16 | 16 | 9 |
|  | S-6 | 16 | 16 | 9 | 9 |
|  | S-7 | 16 | 9 | 9 | 9 |
|  | S-8 | 9 | 9 | 9 | 16 |
|  | S-9 | 16 | 16 | 16 | 16 |
|  | S-10 | 16 | 9 | 16 | 9 |
|  | S-11 | 9 | 16 | 16 | 9 |
|  | S-12 | 16 | 16 | 9 | 16 |
|  | S-13 | 16 | 16 | 9 | 16 |
|  | S-14 | 16 | 16 | 16 | 16 |
|  | S-15 | 16 | 9 | 9 | 9 |
|  | S-16 | 9 | 16 | 16 | 9 |
|  | S-17 | 16 | 16 | 9 | 16 |
|  | S-18 | 9 | 9 | 16 | 16 |
|  | S-19 | 16 | 9 | 16 | 16 |
|  | S-20 | 16 | 16 | 9 | 9 |
|  | S-21 | 16 | 16 | 16 | 16 |
|  | S-22 | 16 | 16 | 16 | 9 |
|  | S-23 | 16 | 16 | 9 | 9 |
|  | S-24 | 16 | 16 | 9 | 16 |
|  | S-25 | 16 | 16 | 16 | 9 |
| JUMLAH | | 365 | 337 | 316 | 316 |

Langkah 1 : menghitung varians skor setiap item soal menggunakan rumus

Adapun varians dari item 12,3, dan 4 yang diperoleh ialah sebagai berikut:

1. Varians Butir 1
2. Varians Butir 2
3. Varians Butir 1
4. Varians Butir 1

Langkah 2: Menjumlahkan varians semua item dengan rumus:

Langkah 3: Menjumlahkan varians total dengan rumus:

Langkah 4: Subtitusikan dan ke rumus *Alpha Cronbach*:

Langkah 5: Mencari nilai rtabel dengan taraf signifikan 0,05 atau 5% dan N = 25, maka diperoleh rtabel = 0,396

Langkah 6: Membuat keputusan dengan membandingkan rhitung dengan rtabel

1. Jika rhitung > rtabel berarti reliabel
2. jika rhitung < rtabel berarti tidak reliabel

Kesimpulan: karena rhitung = -0,294 lebih kecil dari rtabel = 0,396, maka semua soal yang dianalisis dengan metode *Alpha Cronbach* merupakan tidak reliabel

**Lampiran 11**

**TINGKAT KESUKARAN BUTIR SOAL TES PEMAHAMAN KONSEP GEOMETRI SISWA**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Siswa** | **Skor Pertanyaan / Skor Maksimal** | | | |
| **1** | **2** | **3** | **4** |
|  | S-1 | 4 | 4 | 3 | 3 |
|  | S-2 | 4 | 3 | 3 | 4 |
|  | S-3 | 4 | 3 | 4 | 4 |
|  | S-4 | 4 | 3 | 4 | 4 |
|  | S-5 | 3 | 4 | 4 | 3 |
|  | S-6 | 4 | 4 | 3 | 3 |
|  | S-7 | 4 | 3 | 3 | 3 |
|  | S-8 | 3 | 3 | 3 | 4 |
|  | S-9 | 4 | 4 | 4 | 4 |
|  | S-10 | 4 | 3 | 4 | 3 |
|  | S-11 | 3 | 4 | 4 | 3 |
|  | S-12 | 4 | 4 | 3 | 4 |
|  | S-13 | 4 | 4 | 3 | 4 |
|  | S-14 | 4 | 4 | 4 | 4 |
|  | S-15 | 4 | 3 | 3 | 3 |
|  | S-16 | 3 | 4 | 4 | 3 |
|  | S-17 | 4 | 4 | 3 | 4 |
|  | S-18 | 3 | 3 | 4 | 4 |
|  | S-19 | 4 | 3 | 4 | 4 |
|  | S-20 | 4 | 4 | 3 | 3 |
|  | S-21 | 4 | 4 | 4 | 4 |
|  | S-22 | 4 | 4 | 4 | 3 |
|  | S-23 | 4 | 4 | 3 | 3 |
|  | S-24 | 4 | 4 | 3 | 4 |
|  | S-25 | 4 | 4 | 4 | 3 |
| JUMLAH | | 95 | 91 | 88 | 88 |
| Skor Maksimal | | 4 | 4 | 4 | 4 |

Adapun langkah-langkah nntuk menghitung tingkat kesukaran soal ialah sebagai berikut:

Langkah 1: menghitung rata-rata skor untuk tiap butir soal dengan rumus:

Langkah 2: Menghitung tingkat kesukaran dengan rumus:

|  |  |  |
| --- | --- | --- |
| **No.** | **Indeks Kesukaran** | **Keterangan** |
| 1. | 0,95 | Mudah |
| 2. | 0,91 | Mudah |
| 3. | 0,88 | Mudah |
| 4. | 0,88 | Mudah |

**Lampiran 12**

**DAYA PEMBEDA BUTIR SOAL TES PEMAHAMAN KONSEP GEOMETRI SISWA**

Mengurutkan data dari data terbesar ke data terkecil

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No** | **Siswa** | **Skor Pertanyaan / Skor Maksimal** | | | | **Total Skor** |
| **1** | **2** | **3** | **4** |
|  | S-9 | 4 | 4 | 4 | 4 | 16 |
|  | S-14 | 4 | 4 | 4 | 4 | 16 |
|  | S-21 | 4 | 4 | 4 | 4 | 16 |
|  | S-3 | 4 | 3 | 4 | 4 | 15 |
|  | S-4 | 4 | 3 | 4 | 4 | 15 |
|  | S-12 | 4 | 4 | 3 | 4 | 15 |
|  | S-13 | 4 | 4 | 3 | 4 | 15 |
|  | S-17 | 4 | 4 | 3 | 4 | 15 |
|  | S-19 | 4 | 3 | 4 | 4 | 15 |
|  | S-22 | 4 | 4 | 4 | 3 | 15 |
|  | S-24 | 4 | 4 | 3 | 4 | 15 |
|  | S-25 | 4 | 4 | 4 | 3 | 15 |
|  | S-1 | 4 | 4 | 3 | 3 | 14 |
|  | S-2 | 4 | 3 | 3 | 4 | 14 |
|  | S-5 | 3 | 4 | 4 | 3 | 14 |
|  | S-6 | 4 | 4 | 3 | 3 | 14 |
|  | S-10 | 4 | 3 | 4 | 3 | 14 |
|  | S-11 | 3 | 4 | 4 | 3 | 14 |
|  | S-16 | 3 | 4 | 4 | 3 | 14 |
|  | S-18 | 3 | 3 | 4 | 4 | 14 |
|  | S-20 | 4 | 4 | 3 | 3 | 14 |
|  | S-23 | 4 | 4 | 3 | 3 | 14 |
|  | S-7 | 4 | 3 | 3 | 3 | 13 |
|  | S-8 | 3 | 3 | 3 | 4 | 13 |
|  | S-15 | 4 | 3 | 3 | 3 | 13 |
| JUMLAH | | 95 | 91 | 88 | 88 | 362 |

Menentukan kelompok atas dan kelompok bawah

Data Kelompok Atas

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No** | **Siswa** | **Skor Pertanyaan / Skor Maksimal** | | | | **Total Skor** |
| **1** | **2** | **3** | **4** |
|  | S-9 | 4 | 4 | 4 | 4 | 16 |
|  | S-14 | 4 | 4 | 4 | 4 | 16 |
|  | S-21 | 4 | 4 | 4 | 4 | 16 |
|  | S-3 | 4 | 3 | 4 | 4 | 15 |
|  | S-4 | 4 | 3 | 4 | 4 | 15 |
|  | S-12 | 4 | 4 | 3 | 4 | 15 |
|  | S-13 | 4 | 4 | 3 | 4 | 15 |
|  | S-17 | 4 | 4 | 3 | 4 | 15 |
|  | S-19 | 4 | 3 | 4 | 4 | 15 |
|  | S-22 | 4 | 4 | 4 | 3 | 15 |
|  | S-24 | 4 | 4 | 3 | 4 | 15 |
|  | S-25 | 4 | 4 | 4 | 3 | 15 |
| Jumlah | | 48 | 45 | 44 | 46 | 183 |
| Rata-rata | | 4 | 3,75 | 3,67 | 3,84 |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No** | **Siswa** | **Skor Pertanyaan / Skor Maksimal** | | | | **Total Skor** |
| **1** | **2** | **3** | **4** |
|  | S-1 | 4 | 4 | 3 | 3 | 14 |
|  | S-2 | 4 | 3 | 3 | 4 | 14 |
|  | S-5 | 3 | 4 | 4 | 3 | 14 |
|  | S-6 | 4 | 4 | 3 | 3 | 14 |
|  | S-10 | 4 | 3 | 4 | 3 | 14 |
|  | S-11 | 3 | 4 | 4 | 3 | 14 |
|  | S-16 | 3 | 4 | 4 | 3 | 14 |
|  | S-18 | 3 | 3 | 4 | 4 | 14 |
|  | S-20 | 4 | 4 | 3 | 3 | 14 |
|  | S-23 | 4 | 4 | 3 | 3 | 14 |
|  | S-7 | 4 | 3 | 3 | 3 | 13 |
|  | S-8 | 3 | 3 | 3 | 4 | 13 |
|  | S-15 | 4 | 3 | 3 | 3 | 13 |
| Jumlah | | 47 | 46 | 44 | 42 | 179 |
| Rata-rata | | 3,62 | 3,54 | 3,39 | 3,23 |  |

Menghitung daya pembeda soal dengan rumus

Soal No 1:

Soal No 2:

Soal No 3:

Soal No 4:

Menginterprestasikan daya pembeda dengan kriteria sebagai berikut:

|  |  |  |
| --- | --- | --- |
| **No Soal** | **Daya Pembeda** | **Keterangan** |
|  | 0,095 | Buruk |
|  | 0,053 | Buruk |
|  | 0,07 | Buruk |
|  | 0,153 | Buruk |

**Lampiran 13**

**Dokumentasi Saat Penelitian Di MTs Al-Washliyah Gedung Johor Medan**







